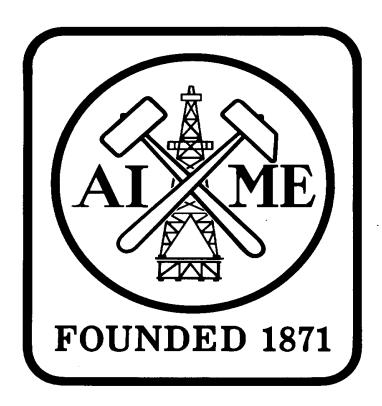
American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.

# **2012 ANNUAL REPORT**



Member Societies:





# Report of the 2012-2013 President George Luxbacher

# The Year in Review

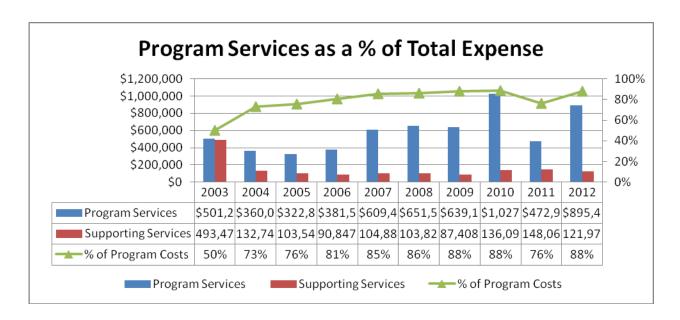
In 2012, AIME continued down its path transitioning to a foundation model and virtual operation. Notably, operating expenses are now in line with income, allowing for 50% of surplus to be directed to its Member Societies to use as they see fit; this totaled \$125,000 per Society in 2013. Of the remainder, 20% is for a matching grant fund to support collaborative efforts; the Board allocated the maximum allowed, \$200,000 for use in 2013. The remainder is retained by AIME for reinvestment.

Subsequently, on April 15, 2013, the AIME Board approved \$100,000 to support development of an inaugural diversity conference in summer 2014 proposed by TMS and supported by SME, honoring the first woman member (1879) of AIME, Ellen Henrietta Swallow Richards. They also approved \$34,000 to match a United Engineering Foundation 2013 grant given to AIST to support growth of the <a href="Emerging Leaders Alliance">Emerging Leaders Alliance</a> (ELA) soft skills annual conference and On Demand training through enhanced marketing to the engineering and scientific community.

AIME leadership represented the groups at Board meetings of the <u>United Engineering Foundation</u> (UEF) and <u>American Association of Engineering Societies</u> (AAES), fully engaging in the latter to help set new strategic direction and establish a new Lifelong Learning working group. We also attended joint events in Washington, DC, including the <u>National Academy of Engineering</u>'s Convocation and <u>Engineering Public Policy Symposium</u>, as well as <u>eWeek</u> for the first time in over a decade. Finally, we submitted more worthy candidates for joint engineering awards than we have in many years and garnered participation by Member Society representatives on key joint committees.

AIME now relies on its Member Societies (staff and members) to execute its former multi-disciplinary efforts. AIME still hosts discussions, facilitates work, and represents its Member Societies in the overarching areas of education, energy and the environment, diversity, sustainability, international growth, outreach, and recognition via pinnacle awards and scholarships. An example of this new mode is the database on the AIME website developed by the AIME Sustainability Steering Committee as a reference to best practices across the engineering community, to infuse sustainability into engineering education (see <a href="SEEKRR">SEEKRR</a>). To enhance the relationships among the organizations, AIME leadership visited headquarters of each of its four Member Societies. In AIME overviews, I emphasized the new mode and streamlined mission to support its Member Societies distributing funds, facilitating interaction, and honoring the legacy and traditions of AIME.

Key initiatives over the past year, related to the latter, have included a legal review of the 38 endowment funds entrusted to AIME to ensure donor intent is being met. We've also focused on enhancing the presidential transition and fiduciary processes, most importantly oversight via new finance and audit committees. We have also effectively breathed life into the AIME archives by uploading historical photos, bios, and annual reports to preserve and promote the rich history of the organization and its esteemed membership. I look forward to remaining engaged in honoring AIME's rich history even after my officer term is done via participation on the newly established planning committee of an AIME Super Conference to celebrate its 150<sup>th</sup> anniversary in 2012 and authoring a related publication.



# **Personal Note**

After my prior tenure as President of AIME's Member Society SME (2008), I felt that my contributions to SME were outweighed by those I had received in friendships and an enhanced understanding of our industry. I never expected that the Presidency of AIME would be just as, if not more, rewarding but that is what has occurred. Early and profound guidance from my predecessors, DeAnn Craig and Brajendra Mishra, prepared me well for this role. Brajendra asked me to step into AIME's involvement in the American Association of Engineering Societies (AAES) and Mike Karmis (another past AIME President) asked me to serve with his proxy of several United Engineering Foundation (UEF) functions. These two tasks gave me a somewhat unique perspective of AIME's interaction with the larger engineering community that, somewhat surprisingly to me, helped me better realize the benefit AIME provides to the Member Societies. The welcome I found at the Member Society annual meetings and staff offices was truly appreciative.

Among the key aspects of AIME are the awards and distributions we make to our Member Societies. Since the Member Societies became separately incorporated in 1984, AIME has distributed over \$30 million, including proceeds from the UEC building sale and revenue from OTC. For the current fiscal year (2013) that number will be approximately \$2.273 million.

The last outreach that AIME did directly to the Member Societies occurred during the Presidency of Dan Thoma in 2007; Dan addressed each of the Member Society Boards to explain what

AIME was and offered. At the time, I was serving on the SME BOD and, while I knew AIME from my initial SME membership days when AIME provided back office (dues payment) support, I had no idea of what AIME provided other than awards. To build off of Dan's concept I developed a presentation which addressed what I consider the three critical aspects of AIME, supported by the facilitated sessions at past AIME Annual Meetings where we have assessed the value proposition: 1) Financial, 2) External and Internal Interaction and 3) History and Tradition. I ultimately gave the presentation 6 times as follows, continuing to develop it further as time went on and my interest grew in the topics:

SPE Staff
SME BOD
TMS BOD
AIST BOD
SME Staff
Dallas, TX
Denver, CO
San Antonio, TX
Pittsburgh, PA
CO
CO

TMS and AIST Staff
Pittsburgh, PA

I will give this presentation one final time to the AIME Board of Trustees at our Annual Meeting at Alyeska Resort in Anchorage, Alaska. I found this presentation to be a very rewarding task, particularly as I delved into the history and development of the Institute. As I begin writing a history of AIME for our 150<sup>th</sup> celebration, I plan to continue to update this presentation and offer to present it upon request.

AIME in its very first year established a tradition of visiting mines and facilities of interest to its members as part of its meetings. While AIME has held its recent Annual Meeting in "resort" destination, I've tried to resurrect the tradition by choosing a location for the 143<sup>rd</sup> Annual Meeting that could tie to the old tradition. As such, we are meeting in Alaska and visiting the largest unexploited proposed Pebble Mine complex, one of the copper/molybdenum/gold/silver ore bodies in existence. This proposed mine relates to all of our Member Societies as a supplier of raw materials necessary for our industries. I only hope that the Presidents that follow me see value in these field visits and continue this re-established tradition.

At the TMS BOD presentation, I mentioned from my research that Ellen Swallow Richards was the first female member of AIME in 1879; she was the spouse of Richards (for whom the Robert H. Richards Award is named) but a distinguished member of our profession in her own right. TMS was already developing a diversity conference and quickly decided to honor her as an early pioneer. A chance conversation at Penn State with one of my former university professors, Frank Aplan, lead to further information on her early career and illuminated the strength the Institute derived from its members as it became a key component of our industries, ultimately spawning the four Member Societies.

We have initiated planning for the 150<sup>th</sup> anniversary of the institute, planning a meeting tentatively set for the Waldorf Astoria Hotel in New York City, the site of many of the New York meeting of the Institute in the past, with a field trip to Wilkes-Barre where AIME was founded in 1872. As I pass my Presidency to Dale Heinz, I feel confident that we are well poised to move forward continuing our service to the Member Societies and our related industries. The relationship between AIME and its Member Societies was captured this year on our Christmas Card, reproduced below.

# Our 2012 Christmas Card



"1871-2021 Countdown to 150th"

# New AIME 2013-2014 Officers and Trustees



### PRESIDENT

Dale Heinz (AIST - Term ends 2015)

DALE E. HEINZ graduated from Bowling Green State University with a B.A. degree in 1974. Upon graduation, Heinz joined The Republic Steel Corp., Cleveland, Ohio, in the blast furnace department as a management trainee. He held a series of supervisory positions of growing responsibility through 1994 with Republic Steel and then LTV Steel post-merger. Heinz earned his M.B.A. from Baldwin-Wallace College in 1993 with honors.

From 1994 to 1996, Heinz was the manager of furnace operations at USS/Kobe Steel in Lorain, Ohio. Heinz rejoined LTV Steel in the steel

producing area and was promoted to department manager in 1998. In 2000, he was promoted to division manager of primary operations and transferred to the Indiana Harbor works in East Chicago, Ind. In 2002, Heinz joined International Steel Group Inc. (ISG) in East Chicago with similar responsibilities. Heinz became a part of the transition team at Burns Harbor during ISG's acquisition of Bethlehem Steel. He remained at Burns Harbor as the division manager of primary operations. Upon the completion of the merger with Mittal Steel USA, Heinz became the senior division manager of primary operations at Burns Harbor.

He has been a member of AIST and its predecessor organizations for 20 years. He is a recipient of the Iron & Steel Society's J.L. Joseph Jr. Award for creativity in ironmaking. In addition to the AIST Foundation, Heinz has served as the chapter chairman for the ISS Cleveland chapter, the chapter chairman of the ISS Midwest chapter, and the chapter chairman for the AIST Midwest Member Chapter. Additionally, he has served on the Ironmaking and Steelmaking program committees, first for ISS and currently with AIST.

## PRESIDENT-ELECT





Behrooz Fattahi is a past member of the American Institute of Aeronautics and Astronautics, and American Association of University Professors. He served as the Executive Editor of the SPE Reservoir Evaluation and Engineering Journal, and on the board of the Society of Petroleum Engineers International (SPE) as the Director of the Western North America Region, President of SPE Americas Inc., and Vice President-Finance.

He is a member of the Board of American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME), and also serves as a member of the United States National Petroleum Council.

Behrooz Fattahi served as the Chairman of the Board, and the 2010 President of SPE International. He is currently a member of the Executive Committee of the SPE Foundation.







Dr. Garry W. Warren obtained his B.S. and M.S. degrees in Metallurgical Engineering at the University of Texas at El Paso. He completed his Ph.D. in 1978 at the University of Utah under the supervision of Dr. Milton Wadsworth. Dr. Warren then spent eight years on the faculty at Carnegie Mellon University before moving to the University of Alabama in 1986. He has been active in various areas of research including fundamental and applied electrochemistry, especially corrosion and electrochemistry, kinetics, chemical and process metallurgy, and computer aided instruction. He has served in many academic capacities at the University of Alabama, including one year as Interim Department Head, and was a founding member of the Engineering Teaching Academy in 2006. He also served as

Director of the Materials Science Program until retiring in 2013. He has been active for many years in The Minerals Metals & Materials Society (TMS), and served several terms on the Board of Directors including Director of Publications and Financial Planning Officer. He was recognized with the Distinguished Service Award in 1998, and the Structural Materials Division Education Resource Award in 2007. He served as President of TMS in 2011.

### PAST PRESIDENT



George Luxbacher (SME - Term ends 2014)

Dr. George W. Luxbacher is vice president of operations with Glenn Springs Holdings, a subsidiary of Occidental. Dr. Luxbacher manages Occidental's RCRA and CERCLA liabilities related to the oil and gas, chemicals and former mining-business segments. Among other responsibilities, he deals with issues related to acid mine drainage from former coal and copper mining sites. Dr. Luxbacher is the co-inventor of a process to dredge and refine phosphorus-bearing sludge into a marketable product and, as part of that work,

developed, designed and constructed a phosphorus recovery plant in Tennessee.

Dr. Luxbacher is a registered professional engineer and a Centennial Fellow of the Pennsylvania State University's College of Earth and Mineral Sciences. He earned B.S., M.S. and Ph.D. degrees in mining engineering from the Pennsylvania State University.

Dr. Luxbacher is a past-president of OneMine.org and a member of the SME Foundation Board of Trustees. He was president of SME in 2008.He is the founder of the Coal & Energy Division scholarship auction and luncheon speaker programs. He has served as chair of the division and on the Executive Committee of the Central Appalachian Section. He served on

the ad hoc committee for SME Governance and was a driving force to create the Education Strategic Committee.

# **Other Voting Trustees**



Ganesh Thakur (SPE - Term ends 2014)

Ganesh C. Thakur is vice president, global advisor and fellow of Chevron Energy Technology Company. Thakur is a world-recognized leader in reservoir engineering & simulation, secondary recovery, reservoir and well productivity improvement, heavy oil, horizontal well technology and EOR. He is also known for the emergence of reservoir management (RM) —in particular waterflooding—as a key interdisciplinary practice. Thakur has an impressive list of publications and teaching engagements conducted around the world. His skills and expertise are called upon widely in the design and operation of RM programs, mentoring technical professionals, and serving as an ambassador

of technical capabilities to National Oil Companies and Government Ministries. He is an SPE Distinguished Member and has served as Technical Director – Reservoir for the Board of Directors, and an SPE Distinguished Lecturer. Thakur has authored 50 technical articles, three books, edited two SPE reprint series, and presented over 150 lectures/short courses around the world.

A past chairperson of the SPE Reprint Series, Thakur has served on the SPE Editorial Review and Forum Series committees and as short-course instructor on Integrated Reservoir Management and Waterflood Management. He received SPE's 2005 Reservoir Description and Dynamics award, 2006 Penn State University's outstanding alumni achievement award, and 1994 Orange County, California's outstanding engineer of the year award. Thakur earned a B.S. degree in petroleum engineering from Indian School of Mines and M.S. and Ph.D. degrees in petroleum and natural gas engineering plus an M.A. degree in mathematics, all from Pennsylvania State University. In addition, he earned an executive MBA degree from Houston Baptist University. He has served as an adjunct professor at USC, University of Texas (Permian Basin), University of Houston, Houston Baptist University, and serving King Saud University in Riyadh, Saudi Arabia.



Ray Peterson (TMS - Term ends 2015)

Dr. Ray D. Peterson is Director of Technology for Aleris International. Prior to the merger, Ray was Vice President of Technology for IMCO Recycling, Inc. which he joined in 1997. Ray also worked for 13 years in a series of positions for Corporate Research and Development of Reynolds Metals Company. Ray received his B.S. Metallurgical Engineering Degree from South Dakota School of Mines and Technology (1980), and his M.S. and Ph.D. in Metallurgy from the University of Utah.

Dr. Peterson was the 2009-2010 President of The Minerals, Metals and Materials Society. He was Light Metals Division chair from 2004 to 2007. In 2000, he served as Chair of the TMS Aluminum

Committee and was Editor of Light Metals, 2000. Ray was Co-organizer of the 3rd International Symposium on Recycling of Metals and Engineered Materials in 1995 and coeditor of the proceedings for that symposium. He has been an invited speaker at a number of technical conferences related to aluminum processing and has been an instructor for internal Aleris training classes. He also serves as an Industrial Advisor to several Metallurgy/Materials Science Departments.



# Nikhil Trivedi, TREASURER 2013-2014 (SME - Term ends 2016)

Nikhil Trivedi has 35 years of business experience---in research and development, engineering, operations, administration and general management and consulting. As vice president of research and development and chief technology officer of Specialty Minerals Inc. (a subsidiary of Minerals Technologies Inc.) from 1987 to 2001, he led the technical activities of the company during its most rapid growth phase.

Nikhil has substantial executive experience gained at Specialty Minerals and through work with parent companies—Pfizer Inc.

and Minerals Technologies Inc. He led Pfizer Minerals' research and development team where pioneering work of fundamental and applied nature was carried out on the process of producing Talc and Calcium Carbonate. He also established and built up a powerful technical group in Finland.

Following his retirement in 2002 from Minerals Technologies Inc., Nikhil established IDEKIN INTERNATIONAL, a firm specializing in developing technology transfer opportunities and providing optimizations for chemical and mineral processes. His clients include corporations in the chemical process industries and mining industry worldwide.

Nik graduated with a Bachelor of Science degree in Chemistry from Bombay University and earned a Master of Science in Metallurgical Engineering from University of Nevada. His Ph. D. degree in Chemical Engineering is from University of Minnesota. University of Nevada awarded him Outstanding Alumni Award in 1995.

In addition to his positions as vice president of R & D and chief technology officer, Nikhil has been an active member of The Society for Mining, Metallurgy and Exploration Inc. (SME), served twice on its Board of Directors and was elected President of SME in 2010. He has also served on the Board of Directors of Industrial Minerals Association of Europe (1991-2001), Calcium Carbonate Association of Europe (1993-2001) United Way of the Greater Lehigh Valley (2001), and Easton Hospital's Valley Health Foundation (1999-2002). He is a Distinguished Member of SME and a recipient of AIME's Hal William Hardinge Award.

At present, Nikhil is a Trustee of American Institute of Mining, Metallurgical and Petroleum Engineers (AIME) and Chair of World Federation of Engineering Organizations' (WFEO) international task group on Sustainability and Mining.



John G. Speer (AIST - Term ends 2017)

John G. Speer, professor of metallurgical and materials engineering, Colorado School of Mines, Golden, Colo., USA joined the Colorado School of Mines (CSM) faculty after 14 years of research and research management in the steel industry. He teaches introductory materials, phase stability and physical metallurgy of ferrous/nonferrous alloys and ferrous physical metallurgy. He holds degrees from Lehigh University and Oxford University, and his background is in physical metallurgy and solid-state phase transformations, as well as product development including alloy design/processing response/application and performance. His

research interest involves ferrous physical metallurgy in general, and links the fundamentals of physical metallurgy with industrial applications. He is extensively involved with the Advanced Steel Processing and Products Research Center and maintains the strong relationships which have developed between CSM faculty/students and the steel producing/consuming community. ASPPRC conducts leading programs in sheet, plate, bar, and stainless steels to develop a better understanding of alloying, microstructure, processing and performance of steels for a variety of industrial applications.

# **Non-Voting Trustees**

# L. Michele Lawrie-Munro AIME Executive Director

Michele Lawrie-Munro has been the Executive Director of the AIME since 2011 having been promoted from the Associate Executive Director position she held since May 2003. Her recent experience includes managing operations as well as leading multi-disciplinary, collaborative efforts.

In addition to the not-for-profit arena, she has used her management and marketing skills in the public and private sectors for telecommunications and professional services firms. She has been involved in leadership development and recognition initiatives and acted as a liaison between marketing and IT departments on systems requirements. Michele has a BS in Business from the University of Colorado at Boulder and has previously volunteered in leadership positions with the Boy Scouts of America and the Hugh O'Brien Youth Foundation Leadership Training.

# AIME Past Presidents (Active List)

2011 - Brajendra Mishra

1983 - Edward E. Runyan

2010 - DeAnn Craig

1982 - Harold W. Paxton

2009 - Ian Sadler

1977 - H. Arthur Nedom

2008 - Michael Karmis

1976 - Julius J. Harwood

2007 - Dan J. Thoma

2006 - James R. Jorden

2005 - Alan W. Cramb

2004 - Robert C. Freas

2003 - Robert H. Wagoner

2000 - Robert E. Murray

1999 - Paul G. Campbell, Jr.

1998 - Roy H. Koerner

1997 - Leonard G. Nelson

1995 - Frank V. Nolfi, Jr.

1994 - Noel D. Rietman

1993 - G. Hugh Walker

1992 - Roshan B. Bhappu

1990 - Donald G. Russell

1989 - Howard N. Hubbard, Jr.

1988 - Thomas V. Falkie

1987 - Alan Lawley

1986 - Arlen L. Edgar

1985 - Norman T. Mills

# Report of the 141st Annual Meeting

Monterey, California - August 2012

The 141<sup>st</sup> Board annual Board meeting was held in Monterey, CA complete with optional Pebble Beach golf outing. Included was a day of professional development and a facilitated ideation session for potential collaborative opportunities and initiatives. The group is still planning for a historical publication and/or joint conference to commemorate AIME's 150<sup>th</sup> in 2021.









# Recipients of Awards and Scholarships Presented by AIME in 2012

Honor Title	Recipient	Society	Citation
Honorary Membership	George W. Luxbacher	SME	In recognition and appreciation of your visionary leadership that has resulted in the development of new organizational partnerships and innovative tools for the betterment of the profession and the enhanced awareness of the nation on matters related to minerals and mining.
Honorary Membership	Iraj Ershaghi	SPE	For his significant contributions to the advancement of knowledge and literature in understanding hydrocarbon reservoir characteristics including rock and fluid properties as well as fluid flow behavior in sedimentary formations with special applications in formation evaluation of hydrocarbon and geothermal reservoirs over the past 40 years.
Honoron, Morek evekir	L. Kent Thomas	SPE	For his brilliant 40-year career encompassing the depth and combination of physical concepts and sound mathematical modeling in all his work and publications, for his contributions and concepts significantly advancing reservoir simulation, and for his work on reservoir simulation of fractured reservoirs, the most
Honorary Membership  Honorary Membership	G. Paul Willhite	SPE	important piece of work on dual-porosity modeling.  For his long and outstanding academic career, for his widely recognized research contributions in conformance control using gelled polymers, as author of textbooks on waterflooding and EOR, for leadership in technology transfer to Independent Oil Operators as Co-Director of the Tertiary Oil Recovery Project, and for exceptional service for SPE and the petroleum engineering profession.
Honorary Membership	Andrew A. Young	SPE	For his SPE leadership focused on internationalization and outreach to all members worldwide, specifically for establishing the Kuala Lumpur office in Asia Pacific, the Dubai Office in Middle East, and the corporate restructure of SPE holding company, all of which has brought about a more efficient running of SPE and facilitated more effective delivery of services to members wherever they reside.
Honorary Membership	David E. Laughlin	TMS	For outstanding service to the AIME through its TMS Society in the field of publishing as well as sustained excellence in teaching and research in the field of metallurgy and magnetic materials.  In honor of his dedication to the steel industry and for
Honorary Membership	lan Sadler	AIST	his years of service as an exceptional leader, serving as President of ISS/AIST (2002, President of AIME (2009), as well as President and Trustee of the ISS and AIST Foundations. His legacy is one of steadfast guidance through societal and global challenges, while fostering a genuine spirit of collaboration and passion for the development of future leaders.

			For his leadership in "Mining Sustainability" at
			McLaughlin before sustainability was a notion in our industry. And for elevating himself above the norm by
Charles F. Rand Memorial Gold			being successful, technically revolutionary, generous,
Medal	Jack Thompson	SME	and a kind and good man.
Charles F. Rand Memorial Gold Medal	Claudio Descalzi	SPE	For his vision, passion, undisputed charismatic leadership and executive skills in managing Eni E&P, a large and complex organization operating in more than 40 countries with more than 10,000 employees of different nationalities and cultures, to realize challenging O&G projects through innovative industrial model with high content of sustainability.
Robert Earll McConnell Award	Joseph Iannicelli	SME	In recognition of his invention, development, and commercialization of high gradient magnetic separation.
Robert Earll McConnell Award	Norman R. Warpinski	SPE	For his pioneering contributions to hydraulic fracture characterization and design as co-inventor and principal developer for microseismic monitoring, which demonstrated the environmental safety of hydraulic fracturing, and optimized and enabled economic recovery of vast shale gas resources, replenishing the accessible natural resources in Canada and the United States.
Environmental Conservation Distinguished Service Award	Charles Bucknam	SME	In recognition of his fine leadership, meritorious service, and constant and steadfast participation in the area of environmental conservation, and for readily sharing his knowledge and experience for the benefit of others.
Mineral Economics Award	Franklin Stermole	SME	In recognition of more than 40 years of exceptional dedication to educating countless students and industry professionals in the practical application of engineering economics and economic analysis.
Mineral Industry Education Award	Sukumar Bandopadhyay	SME	For his leadership in the advancement of Mining Education in Alaska, successful mentoring of students worldwide, and promoting responsible and sustainable mining in the Arctic.
Rossiter W. Raymond Memorial Award	David J. Rowenhorst and Alexis C. Lewis	TMS	"Image Processing and Analysis of 3-D Microscopy Data"
William Lawrence Saunders Gold Medal	Ronald Guill	SME	For your exceptional leadership and for your outstanding safety leadership that you exhibited over the past 25 years in developing and mining dozens of world class mining operations across the Western US especially Nevada, we are extremely proud of your accomplishments, Ron!
Erskine Ramsay Medal	Christopher Bise	SME	In honor of his distinguished leadership and achievements as an engineer, consultant, researcher, educator, author, and administrator, and his ability to integrate various advances in science, engineering, and management for the betterment of the U.S. coal-mining industry.
Robert H. Richards Award	Gerald Luttrell	SME	To recognize the significant global impact of his scientific contributions and engineering excellence for teaching, research, scholarly activity and professional service in mineral and coal processing.

In recognition of his achievements and lifelong contributions to the construction materials industry and especially his work in light weight aggregates and their production in the western United States, and his contributions to the field of industrial minerals through the publication of numerous papers and technical documents as well as his leadership within SME and the professional geologic community.  For His Notable Contributions to the Advancement of Solid Fuels in the State of Alaska and for Scientific Achievements in the Field of Solid Fuel.  Robert Peele Award  Christopher Roos (pronounced "Ross")  Christopher Roos (pronounced "Ross")  SME  Christopher Roos (pronounced "Ross")  SME  For his paper "Estimating Excavator Teeth Consumption Rates"  For his paper "Estimating Excavator Teeth Consumption Rates Rates"  For his paper "Estimating Excavator Teeth Consumption Rates Rates"  For his paper "Estimating Excavator Teeth Consumption Rates Rates Rates Rates Rates Rates Rates				T
Sukumar Bandopadhyay	Hal Williams Hardinge Award	Dennis Bryan	SME	contributions to the construction materials industry and especially his work in light weight aggregates and their production in the western United States; and his contributions to the field of industrial minerals through the publication of numerous papers and technical documents as well as his leadership within SME and the
Christopher Roos (pronounced "Ross")  SME  For his paper "Estimating Excavator Teeth Consumption Rates"  For his leadership in the development of large scale, low-cost, solution extraction-electrowinning process technology and expansion of production through various greenfield and brownfield projects which helped establish Freeport as one of the industry leaders in technology development and operational excellence.  Adam L. Pilchak, Robert E.A. Williams, and James C. Williams  Champ Mathewson Award  Andrew Minor  TMS  Robert Lansing Hardy Award  Andrew Minor  TMS  Robert Lansing Hardy Award  Andrew Minor  TMS  Ronald J. O'Malley  Ais To advancing the understanding of steel quality in continuous casting by serving as a mentor and teacher to all levels of the steel industry. His my years as a presenter at AIST training seminars have helped to enable to all levels of the steel industry. His my years as a presenter at AIST training seminars have helped to enable to the steel industry. His my years as a presenter at AIST training seminars have helped to enable to the steel industry. His my years as a presenter at AIST training seminars have helped to enable to the steel industry. His my years as a presenter at AIST training seminars have helped to enable to the steel industry. His my years as a presenter at AIST training seminars have helped to enable to the steel industry. His my years as a presenter at AIST training seminars have helped to enable the steel industry. His my years as a presenter at AIST training seminars have helped to enable the production data analyses, including several enabling techniques for production and well-test data analyses, reservoir characterization, specifically permeability and in place hydrocarbitation, specifically permeability and in place hydrocarbitation, specifically permeability and in place hydrocarbitation in free asting and international levels, technical and administrative, simple to leadership roles in the SPE (including advosory councils, committees, sub-committees, counc	Percy Nicholls Award	Sukumar Bandopadhyay	SME	Solid Fuels in the State of Alaska and for Scientific
Inversors, solution extraction-electrowinning process technology and expansion of production through various greenfield and brownfield projects which helped establish Freeport as one of the industry leaders in technology development and operational excellence.    Adam L. Pilchak, Robert		Christopher Roos	SME	For his paper "Estimating Excavator Teeth Consumption
E.A. Williams, and James C. Williams TMS Growth in Fully Lamellar Ti-6Al-4V", Met Trans A, January 2010, pp 106-124 For outstanding promise of contributions in advanced materials characterization, with particular emphasis on in-situ testing of properties and behavior at the nanoscale. For advancing the understanding of steel quality in continuous casting by serving as a mentor and teacher to all levels of the steel industry. His many years as a presenter at AIST training seminars have helped to ensure a strong and capable workforce.  J.E. Johnson Award Daniel J. Holmes AIST No citation is given For his pioneering work that serves as the basis for all modern production and an ell-test data analyses, reservoir characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically length and conductivity estimation and production forecasting, specifically reserves estimation. For his tireless work as a very active SPE member since 1984 in various capacities spanning local and international levels, technical and administrative, simple to leadership rosi in the SPE, including advisory councils, committees, sub-committees, councils, technical groups, sections, mentoring, and in organizing and steering workshops, conferences and symposia.  James Douglas Gold Medal NONE NONE NONE NONE NONE NONE NONE NON	Daniel C Jackling Award	Tim Snider	SME	low-cost, solution extraction-electrowinning process technology and expansion of production through various greenfield and brownfield projects which helped establish Freeport as one of the industry leaders
Robert Lansing Hardy Award Andrew Minor TMS nanoscale.  For advancing the understanding of steel quality in continuous casting by serving as a mentor and teacher to all levels of the steel industry. His many years as a presenter at AIST training seminars have helped to ensure a strong and capable workforce.  J.E. Johnson Award Daniel J. Holmes AIST No citation is given  For his pioneering work that serves as the basis for all modern production data analyses, including several enabling techniques for production and well-test data analyses, reservoir characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic	Champ Mathewson Award	E.A. Williams, and James	TMS	Growth in Fully Lamellar Ti-6Al-4V", Met Trans A,
Continuous casting by serving as a mentor and teacher to all levels of the steel industry. His many years as a presenter at AIST training seminars have helped to ensure a strong and capable workforce.  J.E. Johnson Award  Daniel J. Holmes  AIST  No citation is given  For his pioneering work that serves as the basis for all modern production data analyses, including several enabling techniques for production and well-test data analyses, reservoir characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically length and conductivity estimation and production forecasting, specifically reserves estimation.  For his tireless work as a very active SPE member since 1984 in various capacities spanning local and international levels, technical and administrative, simple to leadership roles in the SPE, including advisory councils, committees, sub-committees, councils, technical groups, sections, mentoring, and in organizing and steering workshops, conferences and symposia.  James Douglas Gold Medal  NONE  NONE  NONE  n/a  Frank F. Aplan Award  NONE  NONE  n/a	Robert Lansing Hardy Award	Andrew Minor	TMS	materials characterization, with particular emphasis on in-situ testing of properties and behavior at the
Daniel J. Holmes	Benjamin F. Fairless Award	Ronald J. O'Malley	AIST	continuous casting by serving as a mentor and teacher to all levels of the steel industry. His many years as a presenter at AIST training seminars have helped to
For his pioneering work that serves as the basis for all modern production data analyses, including several enabling techniques for production and well-test data analyses, reservoir characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically length and conductivity estimation and production forecasting, specifically reserves estimation.  For his tireless work as a very active SPE member since 1984 in various capacities spanning local and international levels, technical and administrative, simple to leadership roles in the SPE, including advisory councils, committees, sub-committees, councils, technical groups, sections, mentoring, and in organizing and steering workshops, conferences and symposia.  James Douglas Gold Medal NONE n/a  AIME Distinguished Service Award NONE n/a  Frank F. Aplan Award NONE n/a	J.E. Johnson Award	Daniel J. Holmes	AIST	No citation is given
1984 in various capacities spanning local and international levels, technical and administrative, simple to leadership roles in the SPE, including advisory councils, committees, sub-committees, councils, technical groups, sections, mentoring, and in organizing and steering workshops, conferences and symposia.    James Douglas Gold Medal				For his pioneering work that serves as the basis for all modern production data analyses, including several enabling techniques for production and well-test data analyses, reservoir characterization, specifically permeability and in-place hydrocarbon estimation, hydraulic fracture characterization, specifically length and conductivity estimation and production forecasting,
James Douglas Gold Medal NONE n/a  AIME Distinguished Service Award NONE n/a  Frank F. Aplan Award NONE n/a				1984 in various capacities spanning local and international levels, technical and administrative, simple to leadership roles in the SPE, including advisory councils, committees, sub-committees, councils, technical groups, sections, mentoring, and in organizing
AIME Distinguished Service Award  NONE  n/a  Frank F. Aplan Award  NONE  n/a	DeGolyer Gold Medal	Sunil L. Kokal	SPE	and steering workshops, conferences and symposia.
Award         NONE         n/a           Frank F. Aplan Award         NONE         n/a	James Douglas Gold Medal	NONE		n/a
Frank F. Aplan Award NONE n/a		NONE		n/a
	Howard N Eavenson Award	NONE		n/a

# **Hunt-Kelly Outstanding Paper (AIST) - 2012**

# Partially funded by the AIME Robert W. Hunt Fund

First Place: Hydrogen and Nitrogen Control and Breakout Warning Model for Casting Nondegassed Steel

Sunday Abraham from SSAB Americas

Shaojie Chen James Asante Colin D'Souza

Aaron Cook

**Geoffrey Franco** 

Kendal S. Dunnett

Shahrooz Nafisi, from Evraz Inc. NA

Note: The \$5,000 prize will be divided equally among the authors.

#### Second Place: Optimization of a Submerged Entry Nozzle Design to Reduce Non-metallic Inclusions in Line Pipe Steel

Bruce R. Forman and Jeff A. Thacker from ArcelorMittal Global Research and Development

Mehmet M. Yavuz from Middle East Technical University

Thomas H. Tsai from Hunan Valin Steel Co.

Note: The \$2,500 prize will be divided equally among the three authors.

#### Third Place: Quick Direct Tap at United States Steel Corporation's Gary Works Q-BOP Shop

Yun Li from U. S. Steel Research and Technology Center Alexander Monson from U. S. Steel-Gary Works

Justin K. Novotny from Severstal

Robert R. Rote from Midwest Instrument Co. (MINCO)

Note: The \$1,000 prize will be divided equally among the three authors.

# Henry DeWitt Smith Scholarship - 2012

#### SPE

Mojtaba Pordel Shahri , Ph.D student, University of Tulsa

#### AIST

Dmitri Nassyrov Jason W. Hebert

#### SME

Will Collingwood, University of Alaska Fairbanks

#### TMS

Jennifer Lynn Walley-Carter, Ohio State University, Materials Science Mengtao Xie, Illinois Institute of Technology, Materials Science Karem Tello, Colorado School of Mines, Materials Science Eric Gratz, Boston University, Materials Science

# Benjamin F. Fairless Scholarship - 2012

#### AIST

Gary W. Holladay Jr. Catherine P. Smith

# John S. Marshall Memorial Scholarships - 2012

**Amy Burt Andrew Carey** Clayton Cross **Crystal Croston** Mackenzie Marie Nolan Maureen Phifer

Pankaj Prashant

West Virginia University University of Utah University of Kentucky South Dakota School of Mines & Technology South Dakota School of Mines & Technology Montana Tech

# SME Coal & Energy Scholarships – 2012-2013

# Funded by the AIME Howard N. Eavenson Fund

**Andrew Steven Carey** Ashleigh Julian Mitchell Christopher James Hidy Clayton Cross Colin Doyle Webb Frank Vincent Wallace Hannah Kay McNally Mackenzie Marie Nolan Maureen Phifer Maureen Sullivan

William Mitchell McBrayer

Nathan Phillips Gillespie

University of Utah

New Mexico Institute of Mining and Technology

Virginia Tech

University of Kentucky

University of Alaska Fairbanks (UAF Pennsylvania State University

Missouri University of Science & Technology South Dakota School of Mines & Technology

Montana Tech

Colorado School of Mines

Southern Illinois University Carbondale

West Virginia University

# The Lewis E. and Elizabeth W. Young **Undergraduate Scholarships – 2012-2013**

Selected by SME-WAAIME Pennsylvania-West Section

#### University of Pittsburgh

**Christopher Cillon** Matthew J. Decker, Mining Program Michael Keener, Mining Program Maria Kretzing

Ashley Benedetta Trevor Buck Alexander Bulk William Conrad Clayton Fleshman

Virginia Tech Christopher Hidy Andrew Hobert Russell Jones **Ruby Johnson** Ashlyn Karchner

Linley Mescher Chelsea Newnam Garrett Ripa Melissa Volkmar Matthew Wilkins

West Virginia University

Katarina Rashel Gump

Matthew Osborne, Petroleum and Natural Gas Engineering

# AIME Honorary Members (Active List with Year of Election)

Honorary Membership is awarded in appreciation of outstanding service to the Institute or in recognition of distinguished scientific or engineering achievement in fields embracing, broadly speaking, the activities of AIME and its Member Societies.

SME

SPE SPE

**AIST** 

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SPE

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SPE

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TMS

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SPE SPE

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SPE SPE

SPE

SPE SPE

SME, TMS

AIST

**AIST** 

TMS, AIST

SPE

SPE

SPE

AIST

SPE SPE

SME

	1				
George W.	Luxbacher	2012	SME	Roshan Boman	Bhappu
raj	Ershaghi	2012	SPE	Stephen A.	Holditch
Kent	Thomas	2012	SPE	Larry W.	Lake
G. Paul	Willhite	2012	SPE	Leonard G.	Nelson
Andrew A.	Young	2012	SPE	James L.	Rike
David E.	Laughlin	2012	TMS	Farouk A.	Kenawy
lan	Sadler	2012	AIST	Fernando	Samaniego-Verduzco
Yannis C.	Yortsos	2011	SPE	Donald W.	Peaceman
Egbert U.	Imomoh	2011	SPE	Peter D.	Gaffney
William M.	Cobb	2011	SPE	Rajagopal S.	Raghavan
Theodore F.	Lyon	2011	AIST	Jacques	Bosio
Barbara A.	Filas	2011	SME	Edgar C.	Capen
Eve	Sprunt	2010	SPE	John P.	Hirth
Fikri J.	Kuchuk	2010	SPE	Sadad I.	Al-Husseini
Valery I.	Graifer	2010	SPE	W. John	Lee
Cesare	Colamasi	2010	SPE	Dennis E.	Gregg
Ram G.	Agarwal	2010	SPE	Noel D.	Rietman
Michael	Karmis	2010	SME	R. Lyn	Arscott
Raja V.	Ramani	2010	SME	John K.	Hammes
Robert G.H.	Lee	2010	AIST	Arlie M.	Skov
Maurice C.	Fuerstenau	2009	SME	Robert C	Earlougher, Jr.
Лilton E.	Wadsworth	2009	TMS	Necmettin	Mungan
Alan W.	Cramb	2009	AIST	Khalid	Aziz
James P.	Brill	2009	SPE	Thomas V.	Falkie
Abbas	Firoozabadi	2009	SPE	Morris E.	Fine
Alain C.	Gringartern	2009	SPE	James R.	Jorden
Joseph E.	Warren	2009	SPE	Hossein	Kazemi
Dato' Mohamad Idris	Mansor	2008	SPE	John M.	Campbell, Sr.
David K.	Matlock	2008	AIST	Orville D.	Gaither
Elmond L.	Claridge	2008	SPE	Charles L.	Bare
Gary A.	Pope	2008	SPE	Marvin L.	Katz
Kenneth E.	Arnold	2008	SPE	Frank F.	Aplan
Robert C.	Freas	2008	SME	Howard N.	Hubbard, Jr.
Robert H.	Wagoner	2008	TMS	Alexander	McLean
Alan	Lawley	2007	TMS	Harold W.	Paxton
David R.	Keith	2007	SPE	M.R.J.	Wyllie
Don W.	Green	2007	SPE	T. Don	Stacy
Richard J.	Fruehan	2007	AIST	Marshall B.	Standing
Robert E.	Murray	2007	SME	G. William	Knepshield
Roland N.	Horne	2007	SPE	Michael	Prats
Roy H.	Koerner	2007	SPE	Arlen L.	Edgar
Merton C.	Flemings	2006	TMS	Douglas W.	Fuerstenau

H.J.	Gruy	1988	SPE
Norman T.	Mills	1988	AIST
Edward E.	Runyan	1988	SPE
David A.	Zegeer	1988	SME
Ben H.	Caudle	1987	SPE
Lawrence B.	Curtis	1987	SPE
William A.	Griffith	1987	SME
Donald G.	Russell	1987	SPE
Edmund C.	Babson	1986	SPE
Donald A.	Dahlstrom	1986	SME
William N.	Poundstone	1983	SME
H. Arthur	Nedom	1982	SPE
Julius J.	Harwood	1981	TMS
John C.	Calhoun, Jr.	1976	SPE
Harrison H.	Schmitt	1973	SME

# Legion of Honor 50-Year Members - Class of 1962

AIME is proud to honor the following people whose membership in the Institute spans a fifty-year period. To all of these people, AIME owes gratitude for their loyalty and appreciation for their faith in its standards. Some have held high office in the AIME ranks and have devoted their time and talents to its continued growth and prestige. They stand to serve as outstanding inspirations for all members.

# Society for Mining, Metallurgy, and Exploration (SME)

Russell C. Babcock Robert C. Beers Antonio Boggero George C. Brooks Fredric B. Brost Jerry J. Cape John Clark Michael C. Ellinger James A. Fegan Maurice C. Fuerstenau Moises J. Garcia Harold J. Gluskoter Frederick T. Graybeal Donald J. Grybeck Richard D. Hagni William J. Halvorsen Laurence D. Hartzog Lawrence M. Hermes

Calvert D. Iles Duane B. Jorgensen Edmond A. Justen Moon J. Kim Joseph L. Kirby David M. Koogler Michael C. Korb Benjamin C. Koskiniemi Ronald S. Lapoint Wayne D. Lenton Joseph W. Leonard John E. Litz Douglas J. Lootens James T. March Roger E. McHugh Muhammad N. Mian Anthony G. Moon

James V. Piani Gene W. Pierson Fred J. Pisacane Kenneth F. Reighard Robert J. Reuss William F. Riggs Malcolm M. Roeber Lee W. Saperstein Elwin E. Smith Charles D. Snow Robert J. Steele John C. Stoddard James L. Sykes John W. Trammell Raymond K. Will John E. Wilson William L. Wilson

## The Minerals, Metals, and Materials Society (TMS)

Robert C. Anderson
Peter Beardmore
Claude Belleau
O. Bertea
John C. Bierlein
William T. Black
Ronald N. Caron
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James C. Chesnutt
Adrian H. Daane
Richard A. Daniele
M. Benjamin Dell
Ronald E. Enstrom

John E. Flinn
William W. Gerberich
William M. Goldberger
James A. Hall
Richard W. Hertzberg
Victor Kachur
Robert Kaplan
Pat W Kingman
George J. Klems
David J. Michel
Stan Mocarski
John E. Morral
Thom G. Oakwood

Richard R. Phillips
Howard Pickering
Horace Pops
Harold P. Rajcevic
S. Ramachandran
Cecil G Rhodes
Charles Schimmel, Jr.
John A. Spitznagel
Jacob J. Stiglich
Thomas A. Theobald
Gezinus Van Weert
Fritz V. Wald
Noel Alfred Warner

# Legion of Honor 50-Year Members - Class of 1962 (continued)

# Association for Iron and Steel Technology (AIST)

Jagdish C. Agarwal Joel Gary Bernstein Joseph Carl Besich William H. Betts David T. Blazevic Wesley H. Boersma John C. Campbell Richard J. Choulet Thomas A. Cleary Jr. C. Larry Coe Denis L. Creazzi Terence E. Dancy Stanley P. Darbut Pesi N. Dastur Paul D. Deeley Anthony C. Demos Richard Frank Draus John O. Edstrom Francis E. Fairman Lowell L. French Gordon H. Geiger Carl E. Glaser Thomas C. Graham James F. Hamilton

Gordon L. Hanson Narwani Harman Roger Heaton Harry O. Hefter Wallace L. Hick Jr. Edwin M. Horak George A. Jedenoff Leonard G. Joseph Robert W. Joseph Behram M. Kapadia Clifford W. Kehr P.E. Max M. Krontz Philip R. Landon Frederick C. Langenberg Sigvard W. Lanstrom Joseph LaPorte Edward C. Levy Jr. Louis W. Lherbier Peter B. Mackenzie Gerald J. Marinello Arthur McConnell Royston P. Morgan

John M. Negomir

Sanford M. Nobel

Theodore J. Ondocsin Edward J. Ostrowski Robert D. Pehlke Richard L. Reddy Donald F. Rieco Norman A. Robins Richard E. Rush Norman L. Samways Edward J. Schaming Herbert D. Sellers Sr. Robert G. Shelley Bruce M. Shields Charles E. Slater Ralph M. Smailer George R. St. Pierre Barry A. Strathdee Joseph M. Strouse Jr. Russell E. Swanson Johannes M. Uys John H. Walsh C. T. Ward Richard P. Whelan J. F. B. Wood

# Legion of Honor 50-Year Members - Class of 1962 (continued)

# Society of Petroleum Engineers (SPE)

Roger L Abel
Charles K. Adams
Percy G. Anderson
Brian E. Ausburn
Luther E. Bartlett
Wayne Robert Beeks
George S. Bennett
Douglas W. Bennion
William J. Bernard
Harold W. Bertholf
Charles E. Black
Edward A. Blair
John T. Block
Adam T. Bourgoyne Jr.

Adam T. Bourgoyne Jr. James E. Briggs James L. Burkhart John B. Butz

John B. Butz
Leon G. Byerley Jr.
William S. Cagle
David G. Calvert
Kenneth M. Calvert
Paul M. Carraway
V. K. Chaudry
John J. Cheatham
Dr. William M. Cobb
John E. Cochrane

James W. Collins Wayne M. Compton Chris P. Daley C. E. Daugherty J. B. Davenport Amiel David Lynn B. Davidson Carl A. Davis John R. Dean Hendrik J. De Haan Julia H. Eckerty

Leroy R. England

Martin Essenfeld

Arthur H. Forbes Jr.

James P. Freeman Robert L. Freeman Gary E. Gerhard August W. Glass Gaines L. Godfrey Freelin D. Hamilton Joe T. Hansford Charles E. Harmon Jerry E. Haston Fred M. Haston Jr. Charles L. Hearn Carl Heinrich

Victor W. Henderson Richard F. Herrick James T. Jensen Jean P. Jipp Jr. Stanley C. Jones Ralph O. Kehle Joe C. Keller John L. Kennedy William G. Kern Thomas G. King Paul H. Klootwijk James C. Kromer J. Michael Lacey Roy I. Lahring James W. Lasater James L. LeBlanc Terence F. Leblanc Robert D. Lee

Hugh W. Leiper Harry J. Longwell Francis S. Manning Robert R. Marmor Weston K. Mauz William D. McCain Jr. Donald P. McCourt Jerry M. McCutchan Harry E. Mcphail Jr

Stephen K. Lee

Delven H. Mermis Robert L. Namken Helmut Niko Jake Noe

Harris T. Papahronis Hans J. Patel Herbert L. Peel R. Curtis Phillips Jr. Coley R. Platt Klaus Prikel Paul E. Ramsey Marvin R. Rathke Roland L. Root Stephen H. Rowland Hallam L. Ruark Robert G. Sanders William A. Sears Kent L. Shepherd Rand N. Shulman Gerald D. Simon B. K. Sinha James T. Smith Arthur G. Spillette James R. Stewart Jr. William H. Stone John L. Stout B. A. Strickling Jr. Gordon E. Taylor Larry E. Thomas Alfred J. Thomas II Bill M. Thompson Eugene F. Traverse Joe .E Vaughan Manuel J. Villamar Paul J. Walsh Sheldon Watsky Mark B. Webster

Robert G. Willborn

James N. Yelverton

Leroy M. Williams Jr.

FINANCIAL STATEMENTS DECEMBER 31, 2012

# Contents

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Statement Of Activities	4
Statement Of Cash Flows	5
Statement Of Functional Expenses	6
Notes To Financial Statements	7 - 13



RubinBrown LLP Certified Public Accountants & Business Consultants

1900 16th Street Suite 300 Denver, CO 80202

# **Independent Auditors' Report**

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Board of Trustees American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. Centennial, Colorado

We have audited the accompanying financial statements of the American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. (AIME), which comprise the statement of financial position as of December 31, 2012, and the related statements of activities, cash flows and functional expenses for the year then ended, and the related notes to financial statements.

# Management's Responsibility For The Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

# Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.



We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

# **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of AIME as of December 31, 2012 and the changes in its net assets and its cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

# **Report On Summarized Comparative Information**

We have previously audited AIME's 2011 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated April 19, 2012. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2011 is consistent, in all material respects, with the audited financial statements from which it has been derived.

April 12, 2013

Rulin Brown LLP

# STATEMENT OF FINANCIAL POSITION December 31, 2012

(With Summarized Comparative Totals At December 31, 2011)

Assets				
		2012		2011
Current Assets	-			
Cash and cash equivalents	\$	205,053	\$	123,849
Grants receivable		\$ ·		131,500
Conference fees receivable		2,989		101,516
Prepaid expenses and other assets		6,468		13,919
Total Current Assets		214,510		370,784
Property And Equipment, Net		943		43
Other Assets				
Investments (Note 2)		10,264,223		9,345,599
Total Other Assets		10,264,223		9,345,599
Total Assets	\$	10,479,676	\$	9,716,426
			<u> </u>	
Liabilities And Net Assets				
Current Liabilities				
Accounts payable and accrued expenses	\$	14,300	\$	259,721
Member society direct payable		500,000		
Total Current Liabilities		514,300		259,721
N / A				
Net Assets		A #0.4 A **		0.440.4.5
Unrestricted		6,534,665		6,443,442
Unrestricted - board designated for matching grants (Note 1)		175,000		
Temporarily restricted (Note 5)		2,822,209		2,415,640
Permanently restricted (Note 6)		433,502		597,623
Total Net Assets	,	9,965,376		9,456,705
Total Liabilities And Net Assets	\$	10,479,676	\$	9,716,426

# STATEMENT OF ACTIVITIES

# For The Year Ended December 31, 2012

(With Summarized Comparative Totals For The Year Ended December 31, 2011)

	Unrestr	cted	Т	emporarily Restricted		nanently estricted	Total 2012		Total 2011
Revenues And Gains									
Investment return (loss) (Note 2)	\$ 81	3,635	\$	350,052	\$		\$ 1,163,687	\$	(99,407)
Offshore technology conference fees	1.0	7,310					 297,310	7	264,057
Copyright and other revenue		2,636					2,636		6,156
Grant initiatives		2,500				-	62,500		131,899
Net assets released from restriction (Note 5)		7,604	2222	(107,604)				*:	
Total Revenues And Gains	1,28	3,685		242,448			1,526,133		302,705
Expenses		P							
Program services									
Special projects and grants	58	0,264					580,264		32,247
Medals and awards		7,628		_			107,628		134,356
Grant initiatives		7,591		-			207,591		306,365
Total Program Services		5,483	***************************************			-	 895,483	***************************************	472,968
Supporting services									
Management and general	12	1,979	12.			-	121,979		148,067
Total Expenses	1,01	7,462					1,017,462		621,035
Changes In Net Assets	26	6,223		242,448			508,671		(318,330)
Net Assets, Beginning Of Year	6,44	3,442		2,415,640		597,623	9,456,705		9,775,035
Reclassification of restriction (Note 6)				164,121	O Producero a Mario de Salvan	(164,121)		12	
Net Assets, End Of Year	\$ 6,70	9,665	\$	2,822,209	\$	433,502	\$ 9,965,376	\$	9,456,705

# STATEMENT OF CASH FLOWS For The Year Ended December 31, 2012 (With Summarized Comparative Totals For The Year Ended December 31, 2011)

		2012	2011
Cash Flows From Operating Activities	-	2012	2011
Cash received from members and customers	\$	592,473 \$	173,254
Cash paid to suppliers and employees		(754,982)	(869,596)
Other interest income		45,059	47,625
Net Cash Used In Operating Activities		(117,450)	(648,717)
Cash Flows From Investing Activities			
Disposal of fixed assets		(1,350)	
Contributions to investments		_	(2,136)
Proceeds from distributions of investments		200,004	651,975
Net Cash Provided By Investing Activities		198,654	649,839
Increase In Cash And Cash Equivalents		81,204	1,122
Cash And Cash Equivalents, Beginning Of Year		123,849	122,727
Cash And Cash Equivalents, End Of Year	\$	205,053 \$	123,849
Reconciliation Of Change In Net Assets  To Net Cash Used In Operating Activities  Change in net assets	\$	508,671 \$	(318,330)
Change in het assets	φ	συσ,στι φ	(310,330)
Adjustments To Reconcile Change In Net Assets			
To Net Cash Used In Operating Activities			
Depreciation		450	915
Unrealized (gain) loss on investments		(664,647)	591,694
Realized (gain) on investments		(301,221)	(277,171)
Dividend and interest income on investments		(210,580)	(225,788)
Investment advisory fees		57,820	58,297
Changes in assets and liabilities			
(Increase) decrease in grants receivable		131,500	(131,500)
(Increase) decrease in conference fees receivable		98,527	(97,358)
Decrease in prepaid expenses and other assets		7,451	176
Increase (decrease) in accounts payable		(245,421)	150,573
Increase (decrease) in member society direct payable		500,000	(400,225)
Net Adjustments		(626,121)	(330,387)
Net Cash Used In Operating Activities	\$	(117,450) \$	(648,717)

# STATEMENT OF FUNCTIONAL EXPENSES

For The Year Ended December 31, 2012 (With Summarized Comparative Totals For The Year Ended December 31, 2011)

			1	Program S	Serv	vices				porting ervices				
	-	Projects		Medals I Awards		Grant nitiatives	Tota	l Program Services	Mar	agement I General	*******************************	Total 2012		Total 2011
Member society direct	\$	500,000	\$		\$		\$	500.000	\$	_	\$	500,000	\$	-
Medals, awards and scholarships		43		102,537		132,666		235,246	- 7	323	т.	235,569	4	278,889
Payroll and employee benefits		1,418		_		41		1,459		91,103		92,562		100,122
Meetings - external and other		68,518		4,584		33,742		106,844		629		107,473		160,866
Other		10,000		-				10,000		442		10,442		10,865
Supplies, postage, maintenance and repairs		-		507		302		809		12,524		13,333		17,288
Audit, legal and professional services								<u> </u>		14,563		14,563		18,245
AIME board meetings and travel		285		-		40,840		41,125		855		41,980		32,297
Insurance				-		_				1,090		1,090		1,548
Depreciation										450		450		915
Total Program Services	\$	580,264	\$	107,628	\$	207,591	\$	895,483	\$	121,979	\$	1,017,462	\$	621,035

# NOTES TO FINANCIAL STATEMENTS December 31, 2012

# 1. Summary Of Significant Accounting Policies

## Organization

Organized in 1871, the American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. (AIME) is a professional organization created to support the advancement of member societies and to represent the member societies in the larger engineering and scientific community.

AIME is a not-for-profit organization exempt from federal income taxes under Section 501(c)(3) of the Internal Revenue Code and is not considered a private foundation.

AIME's four member societies are the Society for Mining, Metallurgy, and Exploration (SME); The Minerals, Metals & Materials Society (TMS); the Association for Iron & Steel Technology (AIST) and the Society of Petroleum Engineers (SPE). When sufficient funds are available, 50% of net income is distributed equally to each the member societies. AIME provides funding for overarching programs (programs conducted by two or more member societies that carry out AIME's purpose) and funding for member-direct programs of the member societies based on their project requirements. The AIME financial statements do not include the accounts of the four member societies.

AIME's significant revenue sources include conference proceeds and investment income. AIME retains 15% of conference proceeds received and the remaining 85% is distributed to the member societies.

### **Basis Of Presentation**

The financial statements have been prepared on the accrual basis of accounting in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) topic *Not-for-Profit Entities*.

## Use Of Estimates In The Preparation Of Financial Statements

The preparation of financial statements, in conformity with generally accepted accounting principles, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Notes To Financial Statements (Continued)

## **Method Of Accounting**

Under Not-for-Profit Entities, AIME is required to report information regarding its financial position and activities according to three classes of net assets: unrestricted net assets, temporarily restricted net assets and permanently restricted net assets. Unrestricted net assets of the operating fund are supported by resources over which the governing board has discretionary control. Temporarily restricted net assets are restricted by donors for various uses, including scholarships and awards. Permanently restricted net assets represent AIME's endowment. Support that is restricted by the donor is reported as an increase in unrestricted net assets if the restriction expires in the reporting period in which the support is recognized.

## **Comparative Financial Information**

The financial statements include certain prior-year summarized comparative information in total, but not by net asset class. Such information does not include sufficient detail to constitute a presentation in conformity with generally accepted accounting principles. Accordingly, such information should be read in conjunction with AIME's financial statements for the year ended December 31, 2011, from which the summarized information was derived.

#### Contributions

Contributions received are recorded as unrestricted, temporarily restricted or permanently restricted net assets, depending on the existence or nature of any donor restrictions.

## Cash And Cash Equivalents

For purposes of the cash flow statement, AIME considers all highly liquid investments with original maturities of three months or less to be cash equivalents.

#### **Accounts Receivable**

Accounts receivable consist of amounts due from grantors, trusts, member societies and Offshore Technology Conference fees. Management has determined that no allowance for doubtful accounts is necessary.

#### **Investments**

Investments are valued at fair value, which is the prevailing market value at year-end, with the resulting change in unrealized gains or losses included in the statement of activities.

Notes To Financial Statements (Continued)

## **Property And Equipment**

Acquisitions of property and equipment of \$1,000 or more are capitalized. Donated equipment is recorded at fair market value at the date of the donation. Purchased equipment is recorded at cost. Depreciation of furniture and equipment is being provided for by the straight-line method over the estimated useful lives of three to seven years.

## **Member Grants**

Grants for member-direct programs of the member societies are accrued when approved by the Board. When sufficient funds are available, 20% of net income (capped at \$200,000) is allocated to matching grants. Amounts allocated to matching grants are recorded as Board-designated net assets. As of December 31, 2012, the Board designated \$175,000 of net assets for matching grants.

## **Accounting For Uncertainty In Income Taxes**

AIME has been organized as a not-for-profit organization exempt from income taxes under Section 501(c)(3) of the Internal Revenue Code. However, Form 990, Return of Organization Exempt from Income Tax, is filed each year. AIME is subject to federal and state income tax on unrelated business income, if any. During the year ended December 31, 2012, AIME made no estimated tax payments and was not subject to any taxes on unrelated business income.

Tax years that remain subject to examination are years 2009 and forward for the United States Internal Revenue Service and years 2008 and forward for the State of Colorado.

## 2. Cash And Investments

AIME maintains cash accounts at a commercial bank. The account is insured by the Federal Deposit Insurance Corporation (FDIC) up to \$250,000. At December 31, 2012, AIME had no cash balances in excess of FDIC-insured amounts.

The Board of Trustees has adopted an investment policy which directs endowment funds of AIME to be managed by a firm selected by the Trustees (currently Hirtle Callaghan) for maximum total return with acceptable risk. The Trustees have further adopted an operating budget policy that includes a spending policy related to spending of endowment funds.

Notes To Financial Statements (Continued)

AIME has adopted FASB ASC topic Fair Value Measurement, which established a fair value reporting hierarchy. The reporting hierarchy requires AIME to classify its investments based on valuation inputs used to determine fair value, using three levels. Level 1 investments are valued based on quoted market prices in active markets for identical assets. Level 2 investments are valued based on significant observable market inputs, such as quoted prices for similar assets and quoted prices in inactive markets or other market observable inputs. Level 3 investments are valued using significantly unobservable inputs that reflect the fund managers' determinations of assumptions that market participants might reasonably use in valuing the assets. The valuation levels are not necessarily an indication of the risk associated with investing in those securities. There were no changes to valuation techniques during the current year.

All assets have been valued using a market approach, except for Level 3 assets. Level 3 assets are valued using the income approach. The value of Level 3 assets are increased by transfers in, interest income, dividend income and realized and unrealized gains. The value of Level 3 assets are decreased by withdrawals and realized and unrealized losses.

Fair values on a recurring basis at December 31, 2012, classified by major investment type, are summarized as follows:

			Fair Value Measurements At						
			F	Reporting Da	te Using				
			Quot	ed Prices In					
			Active	Markets For	Unobservable				
			Ide	ntical Assets	Inputs				
	-	2012		(Level 1)	(Level 3)				
Fixed Income									
Cash and equivalents	\$	664,307	\$	664,307	\$ —				
Bonds and notes		2,368,808		2,368,808	-				
Absolute return strategies		391,302			391,302				
Equity									
Large U.S. equity		2,047,701		2,047,701					
Small U.S. equity		199,277		199,277					
Non-U.S. equity		2,634,756		2,634,756	, <del></del> .				
Alternative equity		1,341,190			1,341,190				
Equity securities		616,882		616,882					
Total	\$	10,264,223	\$	8,531,731	\$ 1,732,492				

Notes To Financial Statements (Continued)

The following is a reconciliation of Level 3 investments for which significant unobservable inputs were used by the fund managers in determining value:

Balance at January 1, 2012	\$ 1,552,671
Total interest and dividends	64,050
Total unrealized losses	(1,763)
Transfers into alternative equity	117,534
Balance At December 31, 2012	\$ 1,732,492

Transfers into alternative equity securities occur periodically as AIME makes investments in these securities to meet asset allocation and investment objectives.

Of the total investments noted above, 11 of the 13 funds are individually over 5% of the total investment portfolio.

Investment income and its classification in the statement of activities for the year ended December 31, 2012 is as follows:

Dividends and interest	\$ 210,580
Realized gains	301,221
Unrealized gains	664,647
Other investment income	45,059
Investment advisory fees	(57,820)
<b>Total Investment Income</b>	\$ 1,163,687

## 3. Retirement Plan

Effective January 1, 2008, AIME adopted a defined contribution plan administered by a third-party trustee covering all full-time employees. Employer discretionary matching contributions of 80% of the first 6% (or 100% of the first 5%) of employee contributions are required to be made each pay period. Beginning in 2012, AIME also contributes a 3% Safe Harbor contribution annually. Employees are eligible to participate in the plan after three months of service and are 100% immediately vested. AIME contributed \$3,126 as the employer match for the year ended December 31, 2012.

Notes To Financial Statements (Continued)

## 4. Transactions With Affiliates

AIME remitted \$2,256,295 to member societies in 2012 for assistance with their annual meetings, reimbursement for award programs and special programs.

# 5. Temporarily Restricted Net Assets

Temporarily restricted net assets fulfilling time and other restriction requirements were released in the amount of \$107,604 as of December 31, 2012.

Temporarily restricted net assets at December 31, 2012 have been restricted by donors for special projects to be spent as follows:

Medals and awards	\$ 1,067,923
Scholarships	857,040
Specific use	 897,246
Total	\$ 2,822,209

# 6. Permanently Restricted Net Assets

AIME's endowment funds are all classified as permanently restricted net assets. The Board of Trustees has interpreted the New York and Colorado Uniform Prudent Management of Institutional Funds Act as not requiring AIME to maintain the purchasing power of its donor-restricted endowment funds, if any, but only to preserve the donor-restricted endowment absent explicit donor stipulations to the contrary. As a result of this interpretation, AIME would classify as permanently restricted net assets (1) the original value of gifts donated to the permanent endowment and (2) the original value of subsequent gifts to the endowment.

Endowment funds are managed by an investment firm according to the Trustees' investment policy, which calls for maximum total return with acceptable risk. The Trustees' spending policy for endowment funds is incorporated in its operating budget policy.

During 2012, the Board of Directors approved the reclassification of restriction for the Marshall Endowment fund received in 2004. The endowment fund has been reclassified from permanently restricted to temporarily restricted.

Notes To Financial Statements (Continued)

Permanently restricted net assets are investments in perpetuity, the income from which is expendable to support the following programs. There were no additions to permanently restricted net assets during 2012.

Scholarships	\$	176,363
Specific use		146,000
Medals and awards	-	111,139
Total	\$	433,502

# 7. Subsequent Events

AIME reviewed subsequent events through April 12, 2013, which is the date the financial statements were available to be issued.

# 8. Related Parties

SME processes payroll for AIME. AIME reimburses SME monthly for employee wages, benefits, payroll fees and various administrative expenses.

## **Member Societies**



## Society for Mining, Metallurgy, and Exploration

12999 East Adam Aircraft Circle, Englewood, CO 80112 Phone: 303-948-4200, Fax: 303-973-3845

Internet: www.smenet.org E-mail: sme@smenet.org



## The Minerals, Metals & Materials Society

184 Thorn Hill Road, Warrendale, PA 15086-7528 Phone: 724-776-9000, Fax: 724-776-3770 Internet: www.tms.org E-mail: tmsgeneral@tms.org



## **Association For Iron and Steel Technology**

186 Thorn Hill Road, Warrendale, PA 15086-7528 Phone: 724-776-6040, Fax: 724-776-1880 Internet: www.aist.org/

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