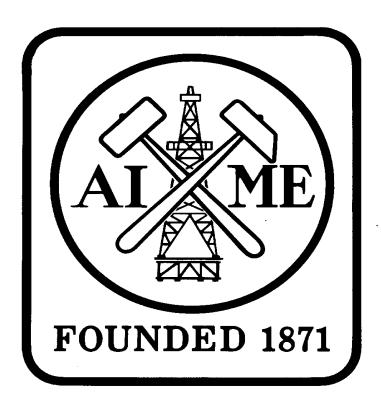
American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.

## **2015 ANNUAL REPORT**



Member Societies:











Garry Warren 2015 President

# Report of the 2015 – 2016 AIME Leadership

**The Year in Review** 



Michele Lawrie-Munro
Executive Director

#### **New Beginnings**

In 2015, AIME began a journey down a path of re-discovery. It started with a few task groups analyzing areas of strategic importance: AIME awards, grants, and governance. The good news is that AIME Awards are highly valued by the Member Societies, albeit in different ways, and the processes for nominating and conferring those are working well.

In contrast, the AIME Collaborative Grants process had become competitive, so its task force suggested altering the program to only support efforts in which all 4 Member Societies would engage. Recent examples include the <a href="Emerging Leaders Alliance young leaders training">Emerging Leaders Alliance young leaders training</a> and Engineering Solutions for Sustainability efforts. For the latter, AIME provided a \$40,000 collaborative grant to support a <a href="Sustainability symposium">Sustainability symposium</a> (follow-on to 2009 Lausanne

workshop) March 18-19 at TMS' 2015 annual meeting in Orlando, FL including speakers from ASCE and AIChE. SME will host the 3<sup>rd</sup> iteration February 18-19, 2017 in Denver, CO.





Also, in recognition of the importance placed on student and young member programs by all 4 Member Societies, the AIME Board voted in December to provide each Member Society with \$10,000 toward those efforts.

AIME continues to provide 50% of surplus to its Member Societies to use as they see fit; this totaled \$28,431 per Society in 2015 (from 2014 surplus). Of the remaining surplus, 20%

is used to support collaborative efforts; the Board allocated just over \$45,000 from end 2014. The Board also directed ½ of these dollars each year beginning 2014 to support a 150<sup>th</sup> anniversary celebration in 2021. Out of the \$300,000 estimated costs, \$120,000 has been set aside to date. AIME 2012 President from SME, George Luxbacher, chairs the planning committee for this joint Member Society event.



As an outgrowth of the strategic planning process carried out under 2014 President, Behrooz Fattahi, the Board approved two new committees in August 2015, History & Heritage and External Affairs. Their membership and charters were approved in December and the groups are finalizing recruitment, adding sub-task forces as needed.

Under the aegis of the External Affairs Committee three additional sub-task forces have been organized: Council of Excellence (a 'think tank' aimed at identifying cross-cutting technologies or technological gaps), the ELA Evaluation (to generate information for the purpose of maintaining or improving the quality of the ELA event), and External Awards (to establish a process for identifying deserving individuals to nominate for significant awards external to AIME).

This new committee structure will help the board to maintain a more strategic focus with the committees dealing with tactics. Having additional non-trustee volunteers from the Member Societies will also lessen the workload for the board and involve a broader group in the work of the Institute. These groups will begin their first full year of existence in summer 2016, and we look forward to seeing the results of their work. Let us know if you have desire to learn more or volunteer for future openings (chart on next page).

#### Outreach

For many years two of the most significant outreach activities of AIME has been participation in the UEF, United Engineering Foundation, and AAES, American Association of Engineering Societies, and 2016 was no different. AIME leadership attended the UEF Board meeting in September. After a change in executive director in 2015 the UEF carried out a strategic planning exercise. AIME was a full participant in that process and provided comments and suggestions from both current and former trustees, several of whom also served on the UEF Board. AIME is one of the 5 Founder Societies of the UEF, and, as a result, it is imperative that AIME



UEF, and, as a result, it is imperative that AIME tend this relationship carefully as UEF contemplates changes in the way it operates.



AIME President, Garry Warren, and Executive Director (ED), Michele Lawrie-Munro, also attended the fall board meeting of AAES in Reston, VA. AAES and the National Academy of Engineering jointly plan an annual convocation in April where a topic and speakers are selected that have a broad impact on engineering. We're pleased to report that the topic suggested by AIME "The Revolution in Modeling and Simulation for Engineering" was selected for the 2016 convocation. TMS member, Prof. Peter Voorhees of Northwestern University, and AIST member, Prof. Chenn

Zhou of Purdue University, gave powerful talks at the convocation to a broad spectrum of engineering society presidents and leaders. President Elect Nikhil Trivedi also attended this event, along with the AIME President and ED.

AIME also attended joint events in Washington, DC: the Engineering Public Policy Symposium, and National Engineers Week Family Day outreach. The latter was done with the help of local SME members and National Mining Association staff for the third year in a row. The group reached 750 youth and their parents from the region during this one-day event.



#### **Awards**

Finally, the AIME family 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. Notably, AAES conferred three 2015 awards on TMS members, Jeffrey Wadsworth, Suveen Mathadu, and Diran Apelian: the National Engineering, Norm Augustine, and Joan Hodges Medals, respectively, at their annual banquet April 21 in Washington, DC. We are also excited to share that AAES conferred the 2016 Kenneth Andrew Roe Award on Dr.



Brajendra Mishra, a TMS member and also 2011 AIME President. Details can be found at <a href="http://www.aaes.org/awards">http://www.aaes.org/awards</a>.

#### Honoring the Legacy

AIME has continued its partnership with other engineering Founder Societies, Society of Women Engineers, and the Society of Petroleum Engineers to add content to the Engineering and Technology History Wiki (ETHW) to share association history and member knowledge with future generations and the general public. A number of oral histories of significance have been recently collected for the ETHW, for example, AIST member, Dick Teets, SME member, Len Harris, and Alex Scott. Alex was the TMS Executive Director for over 30 years and also served one year in 1991 as Interim Executive Director for AIME. AIME will also upload archival photos and documents and solicit articles and educational outreach material contributions from its Member Societies. Thanks to funding from SME, UC-Berkeley also digitized archival mining legends' oral histories now on AIME's website. These are being reformatted for easier access via AIME's YouTube channel. We appreciate staff and member efforts on this important endeavor to preserve and promote the legacy of AIME and its Member Societies.

Garry Warren 2015 President

Larry Wares

Michele Lawrie-Munro Executive Director

A Michele Yaurie Munro

#### **President's Notes**

#### August 2016

One of the precepts I have always emphasized to students throughout my academic career is that participation in a professional society is not just an obligation but also very rewarding. This past year in my role as 2015 AIME President is a case in point. AIME and TMS have given me so much more in professional growth, technical knowledge, and lifelong friendships than I could possibly enumerate here. Others have said it much more eloquently, but I have come this far in my career because I was able to "stand on the shoulders of giants." One such giant was my Ph.D. advisor, Milton E. Wadsworth, who was 1991 AIME President. I would never have dreamed that I would or could follow him in this role. I am also grateful to all of the AIME Trustees and to the Executive Directors from our four Member Societies. Thank you all for the support and wise counsel you continue to provide to AIME. I am also deeply appreciative of the constant support that our ED, Michele Lawrie-Munro, has provided me over the past year. A special thanks to Behrooz Fattahi, the 2014 AIME President, who has been so gracious.

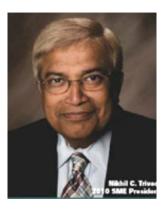
As an umbrella organization, the relationship between AIME and its Member Societies has evolved since 1985 when the Member Societies became separately incorporated. There are numerous important ties between AIME and its Member Societies. To me the most significant of those ties are the history, heritage, and legacy that we all share. AIME and its Member Societies will continue to uphold and honor that history, for it is upon the shoulders of our forebears that future generations will stand.

I welcome Nikhil Trivedi as 2016 AIME President and pledge to assist him in any way that I can. I am confident that AIME is in good hands, and it is with great anticipation that I look forward to AIME's 150<sup>th</sup> Anniversary celebration in Philadelphia in May 2021!

Lary Wares

#### **New AIME 2016-2017 Officers and Trustees**

#### **President**



Nikhil Trivedi (SME - Term ends 2018)

Nikhil Trivedi has 35 years of business experience---in research and development, engineering, operations, administration and general management and consulting. He has served as vice president of research and development and chief technology officer of Pfizer Minerals, Inc. and Minerals Technologies, Inc. from 1987 to 2001. Additionally, between 1994 and 2001 he established and built up a powerful technical group in Finland to support the company's European businesses.

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.

Nikhil 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.

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 an Honorary member of AIME, Distinguished Member of SME and a recipient of AIME's Hal William Hardinge Award.

#### PRESIDENT-ELECT



John Speer (AIST - Term ends 2019)

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.

#### PRESIDENT-ELECT DESIGNATE



Roland Moreau (SPE - Term ends 2020)

Roland is the current Vice President of Finance for the Society of Petroleum Engineers International (SPEi) Board of Directors. From 2011-2014, he also served as the Health, Safety, Security, Environment & Social Responsibility (HSSE-SR) Technical Director on the SPEi Board. He retired from ExxonMobil in August 2014 with 34 years of service, where he held the position of Safety, Security, Health and Environment (SSH&E) Manager for ExxonMobil's Upstream Research, Gas & Power Marketing, and Upstream Ventures business units. He began his career with Exxon Company, U.S.A. as

a Project Engineer at the Bayway Refinery in New Jersey in 1981. Since that time, he has held various technical, supervisory and managerial assignments for Exxon, and then ExxonMobil, in the Upstream production, development, and research organizations. Prior to ExxonMobil, Roland also worked for five years in the naval nuclear industry. Roland received his BS degree in Mechanical Engineering from Worcester Polytechnic Institute in 1975, followed by an MBA in Finance from Fairleigh Dickinson University in 1984. Roland also completed the Certified Financial Planner program at Rice University in 2015.

He remains active on various SPE initiatives in the areas of sustainable development and safety. He also serves as the chair of the HSE Now editorial advisory board, and represents SPE on the Advisory Committee for the Ocean Energy Safety Institute (OESI). Regarding upcoming events, Roland is co-chairing a proposed Near Miss summit with the U.S. Bureau of Safety and Environmental Engineering, and he is also on the program committee for SPE's HSSE Mexico Symposium planned for March 2016.

#### **PAST PRESIDENT**



Garry Warren (TMS - Term ends 2017)

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 aqueous 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.

#### **Other Voting Trustees**



Kevin Zeik (AIST - Term ends 2017)

Dr. Kevin L. Zeik graduated from The Pennsylvania State University with a Ph. D. in Metals Science and Engineering in 1991. His graduate work was focused on copper – niobium microcomposites for the hypersonic aerospace program, working as a Researcher at the Ames Laboratory, Iowa State University. Upon graduation, Zeik joined the United States Steel Corporation Research Center in Monroeville, PA as a Senior Research Engineer working on electron microscopy and surface sciences of steel products. In 1994, he moved into the failure analysis group as an Associate Research

Consultant, and two years later, he was named Research Manager for the failure analysis, computer modeling and welding groups. Zeik moved to the Materials Technology section in 1999, serving as Research Manager of the group until 2002, when he advanced to Technical Director. In 2004, Kevin was named Director - Process Technology Division where he oversaw efforts to improve process efficiency from mining operations through iron and steelmaking and into finishing and coating processes. He focused on the adaptation of existing processes and development of new processes to meet the demands presented by the production of new high performance steel grades. In that year, the Research and Technology was moved to its current location in Munhall, PA. In August 2008, he was advanced to his current position, General Manager - Research for United States Steel Corporation where he is now responsible for directing all research and development activities associated with flat rolled and tubular steels and steel solutions.

He has been a member of AIST and its predecessor organization, ISS, for over 20 years. He has held the positions of Chair – Mechanical Working Division of ISS, and served on the Board of Directors of AIST, including the transition team from ISS to AIST.



### Kate Hadley Baker, TREASURER 2015-2016 (SPE - Term ends 2018)

Kate Hadley Baker is now retired from BP America in Houston, Texas. Her career has spanned many areas among the geoscience and engineering disciplines, including geotechnical, drilling, and reservoir engineering; geology; geophysics; and formation evaluation. Baker started her career at Exxon Production Research Company, working as a research geologist, becoming supervisory geologist in the Reservoir Description Section. She then moved from senior to district geologist positions in Exxon's Offshore Division, then to head of formation evaluation at Exxon Company USA.

After serving in various managerial roles at BP and its predecessor companies, she became distinguished advisor and director of new well delivery in BP's Upstream Technology Function, serving also during 2009–10 as Vann Fellow to Princeton University.

Baker was awarded SPE Distinguished Membership, and Rotary International made her a Paul Harris Fellow. Among many professional volunteer positions, she has served with the US National Science Foundation Advisory Committee and US Department of Energy (DOE)/Office of Basic Energy Sciences Council on Earth Sciences. She currently chairs the annual peer review for the US DOE Geothermal Technologies Program Office and is secretary of the American Rock Mechanics Association. In her association with SPE, Baker is proudest of helping nurture it as an international organization, as a participant in the digital age, and as custodian of international reserves and resources definitions. She earned a BS degree in geology and a PhD in geophysics—both from the Massachusetts Institute of Technology.



Hani Henein (TMS - Term ends 2019)

Hani Henein is a professor at the University of Alberta and director of the Advanced Materials and Processing Laboratory (AMPL) there. Henein earned a B.Eng. and an M.Eng. in metallurgical engineering (1972 and 1976, respectively) from McGill University. In 1981, he received his Ph.D. from the University of British Columbia and joined the faculty at Carnegie Mellon University in Pittsburgh, Pennsylvania. He joined the University of Alberta in 1989 and is a registered professional engineer in the Province of Alberta.

The main thrust of Henein's research at Alberta and as director of the AMPL is to develop new techniques for improved operation of current processes and to develop new near net shape processing routes. This research entails the understanding of the relationship among processing, structure, and properties and making this understanding accessible on-line to process operators. Some recent areas of interest in research include: particulate mixing and segregation, rapid solidification, zone refining, strengthening microalloyed steels, and WC-Ni composites for wear applications. Henein holds one patent, has published more than 140 papers, edited nine books, and consults in the United States, Canada, and Europe.

His research and professional efforts have received wide recognition, including best paper awards such as the Henry Marion Howe Medal from ASM International, the John Chipman Medal from the Association for Iron & Steel Technology (AIST), and the Best Paper Award from the Metallurgical Society (MetSoc) of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM). He was given a Presidential Citation from the Iron and Steel Society (now AIST) and was the recipient of the Silver Medal of MetSoc (CIM). He has received the prestigious Killam Research Fellowship and is a fellow of the Canadian Academy of Engineering and of CIM.

Henein has held senior leadership positions in AIST and TMS. He is currently a member of the TMS Extraction & Processing Division (EPD) Council, the EPD Student Affairs Committee, the TMS Strategic Planning Advisory Committee, and the Powder Metallurgy Committee. He has chaired award committees for TMS, including the Educator, Leadership, and Application to Practice Awards Committee and the Hardy and Mathewson Awards subcommittees. He has served as chair of the EPD Programming Committee, as planning officer for the EPD, and as a key reader for *Metallurgical & Materials Transactions*.

Henein has been active with the American Institute for Mining, Metallurgy, and Petroleum Engineers, of which TMS is a member society, serving as a member of the James Douglas Gold Medal Committee, the Raymond Memorial Award Committee, and the All-Institute Annual Meeting Programming Committee.



Ta Li (SME - Term ends 2020)

Ta M. Li is a marketing and business development specialist for the energy and minerals industry. He received a B.S. in mining engineering from Columbia University and his 50 year career includes assignments in mining operations and management, journalism, mine engineering, sales and marketing.

During his career, Li worked for Kennecott Copper at its Bingham Canyon copper mine, SME as editor of Mining Engineering magazine, Golder Associates, Behre Dolbear & Co. and Pincock,

Allen and Holt. He also worked for Washington Group International, where he was recognized by four consecutive Lion Awards and the Eagle Award for Outstanding Achievements in Marketing and Sales (2003 to 2007).

Li is the author of more than 40 technical articles on open pit and underground mining. He received the Bright Idea Award from the Denver Gold Group, is a Life Member of the American Exploration and Mining Society (AEMA) and a Distinguished Member of SME. He served as President of SME in 2001. In 2010, he received the Lifetime Achievement Award from the Colorado Section of SME. He recently was elected a U.S. representative to the International Organizing Committee of the World Mining Congress, where he serves on its

Scientific Advisory Committee to the 24<sup>th</sup> World Mining Congress to be held in Rio De Janeiro, Brazil in 2016.



### L. Michele Lawrie-Munro 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 research, leadership development and recognition initiatives and been a liaison on systems requirements. She has previously volunteered in leadership positions with the Boy Scouts of America and the <a href="Hugh O'Brien Youth Foundation">Hugh O'Brien Youth Foundation</a>. She received the Certified Association Executive (CAE) designation in 2014 and has a bachelor's degree from the University of Colorado, as well as extensive corporate leadership training.

# AIME Past Presidents (Active List)

2014 - Behrooz Fattahi

1986 - Arlen L. Edgar

2013 - Dale Heinz

1985 - Norman T. Mills

2012 - George W. Luxbacher

1983 - Edward E. Runyan

2011 - Brajendra Mishra

1982 - Harold W. Paxton

2010 - DeAnn Craig

2009 - Ian Sadler

2008 - Michael Karmis

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

1992 - Roshan B. Bhappu

1989 - Howard N. Hubbard, Jr.

1988 - Thomas V. Falkie

1987 - Alan Lawley

### **Report of the 144th Annual Meeting**

Balboa Bay Resort, Newport Beach, CA - August 2015

The 144th AIME Annual Board Meeting was held at Balboa Bay Resort in Newport Beach, CA August 6-8, 2015. The group was welcomed with a Mediterranean reception overlooking the yacht slips and bay. On Friday, attendees heard from the State Lands Commission and toured California Resource Corporation's offshore drilling operation in Long Beach. A tour and dinner on the Queen Mary rounded out the evening. The official Board meeting was held Saturday, followed by a reception and dinner at Studio Montage in Laguna, complete with cliff-side views of the sunset. Additional detail on all of the above can be found AIME's website, www.aimehq.org.













### Recipients of Awards and Scholarships Presented by AIME in 2015

Honor Title	Recipient	Society	Citation
Honorary Membership	Bernt S. Aadnoy	SPE	For being one of the world's foremost experts on inflow control devices for petroleum horizontal wells, for his book Modern Well Design, used as a textbook in universities worldwide, and for his widely recognized knowledge of the petroleum industry.
Honorary Membership	Hazim H. Abass	SPE	For his committed service to SPE, including as a Distinguished Lecturer and an outstanding technical editor; and for his pioneering work resulting in 10 US patents, more than 45 papers, contributions to three books, and more than 1500 citations referring to his work.
Honorary Membership	Syed A. Ali	SPE	For his truly inspirational dedication and service to SPE, selflessly volunteering and actively leading many SPE committees and initiatives to further the mission of SPE for more than 27 years; and for his vital technical contributions to the technical literature.
Honorary Membership	J.J. Azar	SPE	As a key enabler in the development of shale and other current unconventional resource developments and for his outstanding contributions to oil and gas well drilling technology in the areas of drill cuttings transport and removal, modern drilling bit developments, and understanding of dynamic drill string mechanics.
Honorary Membership	Thomas A. Blasingame	SPE	For his development of technology in production data analysis that is innovative and of practical importance, for his inventive and effective teaching in the university and in the industry, and for his tireless and impactful service to SPE and the industry.
Honorary Membership	DeAnn Craig	SPE	For her 30 years of service to SPE on numerous meeting and award committees as a section chair; on editorial review; on the SPE board as a regional director for six years; as SPE president; as the SPE Foundation vice president and as its treasurer; and as AIME president.
Honorary Membership	Emmanuel Garland	SPE	For his outstanding and distinguished service to the industry during his almost 35 years of work; for representing the industry to numerous international and European governments and in global forums; for his service to numerous SPE committees and OGP Committees; and for his numerous articles about industry achievements.
Honorary Membership	Thaddeus Massalski	TMS	For global leadership in the field of materials and sustained seminal contributions to phase equilibria spanning over one half of a century.

Honorary Membership	Ta Li	SME	For exceptional advocacy of the minerals industry, for being a role model for students pursuing careers in mining, metallurgy, petroleum and geology and for his leadership and dedication to SME. Ta Li has served as the president of four major mining professional organizations: SME, the Northwest Mining Association, the Colorado Mining Association and the Denver Gold Group and was a founding member of the Denver chapter of the Mining and Metallurgical Society of America.
Honorary Membership	William H. Wilkinson	SME	For exceptional service to SME as its president and to the Mining & Exploration Division. Will Wilkinson has been a leader in the international exploration and development of copper, gold, silver and molybdenum deposits and in deep sea mining technologies. He directed the exploration, drilling and development of major gold reserves in Nevada, expanded copper reserves at the Chino and Tyrone mines in New Mexico and was instrumental in the discovery of a new copper deposit in the Democratic Republic of Congo.
Honorary Membership	Randy Skagen	AIST	For his extensive support of the AIST Foundation, both financially via Nucor and through his leadership during his years of service as a Trustee, for his commitment to the AIME Board as the AIST representative Trustee, and for his ongoing service as a member of the AIST Executive Committee. His commitment to recruiting the next generation to the steel industry, coupled with his passion for advancing steel technology, represent the cornerstones of his service. His leadership and experience have been assets to Nucor, AIST and AIME.
Charles F. Rand Memorial Gold Medal	Thomas V Falkie	SME	For outstanding contributions to the minerals community and profession through distinguished service in industry, academia, government and professional societies.
Mineral Industry Education Award	Jon J. Kellar	SME	For his exemplary accomplishments and lasting impact in education and scholarly activities in minerals and metallurgical engineering.
William Lawrence Saunders Gold Medal	William M. Zisch	SME	For a distinguished carrier serving the metal and precious metals mining industry worldwide.
Erskine Ramsay Medal	Wen H. Su	SME	For demonstrated technical excellence and extensive published work on coal mine ground control that has benefited the safety and success of the entire coal industry.
Robert H. Richards Award	Rick Q. Honaker	SME	For substantial contributions to the advancement of mineral and coal processing research, technology, education and professional service.
Hal Williams Hardinge Award	William H. Langer	SME	For his extraordinary contribution to the science and sustainable development of industrial minerals and aggregates.

			For the paper "Geometallurgy for two recovery process operations at Cripple Creek & Victor gold
Robert Peele Award	Stacey E. Leichliter	SME	mine"
Daniel C Jackling Award	Murray W. Hitzman	SME	For his outstanding achievements in mineral deposit research, his discovery of significant mineral deposits, his remarkable teaching and mentoring abilities and his leadership in professional societies related to mineral deposits.
Environmental Stewardship Distinguished Service Award	James J. Gusek	SME	In recognition of contributions to mine land reclamation, with particular emphasis on passive treatment of mine drainage.
Frank F. Aplan Award	Robert C. Bratton	SME	For substantive contributions to the research, development, demonstration and deployment of new processing technology for the coal and minerals industries.
Howard N Eavenson Award	Christopher J. Pritchard	SME	For his contribution in operations and research to improve mine airflow and the working environment for the safety and health of miners.
AIME Robert Earll McConnell Award	David B. George	SME	For developing an energy efficient and environmental friendly copper smelting technology which has become the best copper smelting technology in industry.
James Douglas Gold Medal	Uday Bhanu Pal	TMS	For pioneering work in the new field of green metallurgy and materials as applied to primary production and recycling of metals.
AIME Presidential Citation (formerly AIME Distinguished Service Award)	Brajendra Mishra	TMS	For being the champion of cross-disciplinary efforts in the areas of sustainability and carbon management and his work in establishing the AIME Collaborative Grants Program that provides tangible and ongoing financial assistance to the Member Societies of the American Institute of Mining, Metallurgical & Petroleum Engineers.
Champ Mathewson Award	Jian-Feng Nie	TMS	For the paper, "Precipitation and Hardening in Magnesium Alloys" published in Met Trans A, Vol 43A, Nov 2012, p. 3891-3939
Robert Lansing Hardy Award	Peter Hosemann	TMS	For seminal contributions to our understanding of materials behavior in extreme environments, particularly related to small-scale mechanical testing of materials for nuclear applications.
Benjamin F. Fairless Award	Larry Heaslip	AIST	No citation is given
J.E. Johnson Award	Michael Pomeroy	AIST	No citation is given

Anthony F. Lucas Gold Medal	Anil Kumar	SPE	For pioneering the development of pressure derivatives in well test interpretation, developing the first computational algorithm for determining transient drainage areas and streamlines, and advancing the engineering of reservoir surveillance; for co-authoring Gas Well Test Analysis under Water-Drive Conditions and founding the New Mexico Petroleum Recovery Research Center.
Charles F. Rand Memorial Gold Medal	Amin H. Nasser	SPE	For his lifetime of dedication to the petroleum industry and for his vision and leadership, taking Saudi Aramco and the entire petroleum business to new levels of excellence, leading innovations in technology, business operations, and human resource investment.
Rossiter W. Raymond Memorial Award	Ibrahim Fathi and I. Yucel Akkutlu	SPE	For the paper, "Multiscale Gas Transport in Shales With Local Kerogen Heterogeneities"
			For his 35-year career of outstanding contributions of service to SPE, to the engineering profession, and to the petroleum industry through education, mentoring, and accreditation evaluation, and the development and dissemination of technologies through publications, research, training, and organization of technical events.
DeGolyer Gold Medal	Ali Ghalambor	SPE	tecinical events.

### **Hunt-Kelly Outstanding Paper (AIST) - 2015**

Partially funded by the AIME Robert W. Hunt Fund

First Place: Stopper Rod Dithering Trials at ArcelorMittal Dofasco's No. 1 Continuous Caster

Stephen Chung Joydeep Sengupta Mehrnoosh Afnan-Alaie

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

Second Place: An Overview of Steel Cleanliness from an Industry Perspective

Helmut Oltmann Eugene Pretorius Brian Schart

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

Third Place: Advanced Blowing and Stirring Conditions in the BOF Process

Hans-Juergen Othenthal Pavlo Grygorov Markus Reifferscheid Jochen Schlueter

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

### **Henry DeWitt Smith Scholarship - 2015**

#### SPE

Aygyul Telyasheva, Certified Engineering Technologist at Ufa State Petr Technology University

#### AIST

Dong-Geun Kim, Materials Engineering, McGill University
Andrew A. Russo, Metallurgical Engineering at MO University of Science & Technology
Saikat Chatterjee, Materials Science & Engineering, University of Toronto
April D. Pitts, Metallurgical Engineering, University of Alabama

#### **SME**

Asseu Gilbert Yapo, Montana Tech

#### TMS

Mohsen Seifi, Case Western Reserve University Alexandra Anderson, Colorado School of Mines

### Benjamin F. Fairless Scholarship - 2015

#### **AIST**

Andrew J. Knueven, Mechanical Engineering, Kent State Erik S. Bain, Materials Science & Engineering, Michigan Tech

### John S. Marshall Memorial Scholarships - 2015

Chelsea BarrettVirginia TechJoseph BrightVirginia TechGeorge ChapinUniversity of Utah

Austin Diericx Southern Illinois University Carbondale

Nathan Ellgen University of Utah Spencer Evans University of Utah Carolyn Kosloski Virginia Tech

Kaylor Peratt Colorado School of Mines

Steven Piippo Montana Tech

### SME Coal & Energy Scholarships - 2015-2016

#### Funded by the AIME Howard N. Eavenson Fund

Aayush Anand Indian School of Mines

Andrew Hanneke Missouri University of Science & Technology

Aubrey Athey Virginia Tech
Crystal K. Darger University of Utah

Daniel VanOverbeke South Dakota School of Mines

Danielle Taran University of Arizona

Donald Francescon Southern Illinois University Carbondale

Joel PattonMontana TechJohn CybriwskyUniversity of KentuckyRahul DeshmukhIndian School of MinesSharans KabraIndian School of MinesShubham KankaneIndian School of MinesSunny SoarabhIndian School of Mines

Walter Price Penn State

# The Lewis E. and Elizabeth W. Young Undergraduate Scholarships - 2015-2016

#### Selected by SME-WAAIME Pennsylvania-West Section

Nick Cox Britt Cupp Bradley Gifford Virginia Tech
James Heck
Brooks Morrison
John Naessens
Daniel Rowles

Neha Sharma Stuart Smith Sean Reed

University of Kentucky
Ashish Ranjan Kumar

University of Pittsburgh

Tyler Alan Payton Forrest Sara Saidman Andrew Wright

## 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.

Emmanuel	Garland	2015	SPE
DeAnn	Craig	2015	SPE
Thomas A.	Blasingame	2015	SPE
J.J.	Azar	2015	SPE
Syed A.	Ali	2015	SPE
Hazim H.	Abass	2015	SPE
Bernt S.	Aadnoy	2015	SPE
Randy	Skagen	2015	AIST
Thaddeus	Massalski	2015	TMS
William H.	Wilkinson	2015	SME
Та	Li	2015	SME
Mary F.	Wheeler	2014	SPE
Albert C.	Reynolds, Jr.	2014	SPE
Thomas K.	Perkins	2014	SPE
S.M. Farouq	Ali	2014	SPE
Ali H.	Dogru	2014	SPE
Adam T.	Bourgoyne, Jr.	2014	SPE
Roderick I. L.	Guthrie	2014	AIST
William P.	Barker	2014	AIST
David	Seidman	2014	TMS
Fred I.	Stalkup	2013	SPE
Giovanni	Paccaloni	2013	SPE
Medhat M.	Kamal	2013	SPE
Emmanuel O.	Egbogah	2013	SPE
Kate	Hadley Baker	2013	SPE
Turgay	Ertekin	2013	SPE
Ali R.	Al-Jarwan	2013	SPE
Gerald R.	Heffernan	2013	AIST
Indira	Samarasekera	2013	AIST
Bhakta B.	Rath	2013	TMS
Nikhil C.	Trivedi	2013	SME
George W.	Luxbacher	2012	SME
Iraj	Ershaghi	2012	SPE
L. Kent	Thomas	2012	SPE
G. Paul	Willhite	2012	SPE
Andrew A.	Young	2012	SPE
David E.	Laughlin	2012	TMS
lan	Sadler	2012	AIST
Yannis C.	Yortsos	2011	SPE
Egbert U.	Imomoh	2011	SPE
William M.	Cobb	2011	SPE
Theodore F.	Lyon	2011	AIST
	, - <b>,</b>		

Barbara A.	Filas	2011	SME
Eve	Sprunt	2010	SPE
Fikri J.	Kuchuk	2010	SPE
Valery I.	Graifer	2010	SPE
Cesare	Colamasi	2010	SPE
Ram G.	Agarwal	2010	SPE
Michael	Karmis	2010	SME
Raja V.	Ramani	2010	SME
Robert G.H.	Lee	2010	AIST
Alan W.	Cramb	2009	AIST
James P.	Brill	2009	SPE
Abbas	Firoozabadi	2009	SPE
Alain C.			
	Gringartern	2009	SPE
Dato' Mohamad Idris		2008	SPE
David K.	Matlock	2008	AIST
Gary A.	Pope	2008	SPE
Kenneth E.	Arnold	2008	SPE
Robert C.	Freas	2008	SME
Robert H.	Wagoner	2008	TMS
Alan	Lawley	2007	TMS
David R.	Keith	2007	SPE
Don W.	Green	2007	SPE
Richard J.	Fruehan	2007	AIST
Robert E.	Murray	2007	SME
Roland N.	Horne	2007	SPE
Roy H.	Koerner	2007	SPE
Merton C.	Flemings	2006	TMS
Roshan Boman	Bhappu	2006	SME
Stephen A.	Holditch	2006	SPE
Larry W.	Lake	2006	SPE
Leonard G.	Nelson	2006	AIST
Fernando	Samaniego-Verduzco	2005	SPE
Donald W.	Peaceman	2004	SPE
Peter D.	Gaffney	2003	SPE
Rajagopal S.	Raghavan	2003	SPE
Jacques	Bosio	2002	SPE
Edgar C.	Capen	2002	SPE
John P.	Hirth	2002	TMS
Sadad I.	Al-Husseini	2001	SPE
W. John	Lee	2001	SPE
Dennis E.	Gregg	2000	SPE
Noel D.	Rietman	1999	SPE

R. Lyn	Arscott	1998	SPE
John K.	Hammes	1998	SME
Necmettin	Mungan	1997	SPE
Khalid	Aziz	1996	SPE
Thomas V.	Falkie	1996	SME
James R.	Jorden	1995	SPE
Hossein	Kazemi	1995	SPE
Orville D.	Gaither	1994	SPE
Charles L.	Bare	1993	SPE
Marvin L.	Katz	1993	SPE
Frank F.	Aplan	1992	SME, TMS
Howard N.	Hubbard, Jr.	1992	AIST
Alexander	McLean	1992	AIST
Harold W.	Paxton	1992	TMS, AIST
G. William	Knepshield	1990	AIST
Michael	Prats	1990	SPE
Arlen L.	Edgar	1989	SPE
Douglas W.	Fuerstenau	1989	SME
Norman T.	Mills	1988	AIST
Edward E.	Runyan	1988	SPE
Ben H.	Caudle	1987	SPE
Lawrence B.	Curtis	1987	SPE
Donald A.	Dahlstrom	1986	SME
Harrison H.	Schmitt	1973	SME

#### Legion of Honor 50-Year Members - Class of 1965

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)

M.N. Anderson **Donald Gustafson Leonard Austin** Jeremy Hemphill Edwin Bentzen **Artemas Holmes** Paul Blair **Keith Hulley** Phil Bowman **Guy Johnson Curtis Burgess** Hemendra Kalia Yoginder Chugh John Klemenic **David Krebs** Harr[son Cooper Harry Cougher **Richard Kunter** George Desko Richard Laird Dale Dixon George Lensch Martin Duarte Ta Li Rene Dufour James Mason **Donald Ewart Douglas Mcintosh Edmund Finch** John McKana Michael Fraser Jack Merritts Robert Golkosky Drew Meyer **Terry Gooding** Frank Milliken L.F. Muller, Chico

Frederic MUllin **Leland Norton** George Oberlick Herbert Osborne **Thomas Parker** Marshall Parsons Kenneth Pohle Kenneth Price Kalanadh Sastry Fred Schulte John Sharp **Gary Skaggs Donald Stevens** Jack Thompson John Van De Beuken **Harry Winters** Bruce Wright Tuncel Yegulalp

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

Ali S. Argon Arden L. Bement, Jr. Lawrence H. Bennett George H. Bishop, Jr. Harris M. Burte Glenn W. Bush Ronald C. Campbell Krishan K. Chawla James L. Chevalier E. Henry Chia Richard E. Cole Robert E. Conreaux Thomas H. Courtney Dimitri Coutsouradis Jerry L. Dassel Lance A. Davis

Frank Emley Saul J. Escalera. PhD Theodore E. Fine James S. Foster Derek J. Frav Louis A. Girifalco J.I. Graham Andrew V. Granato Theodore C. Harman Robert C. Hoffman **Edward W Holmes** H. Joseph Klein George Korinek Timothy J. Kosto **Konrad Kundig** Robert G. Lee Bernard J. Ledeboer

Christopher L. Magee Amiya K. Mukherjee Thomas S. Piwonka Kenneth D. Prince Aldo M. Reti Peter A. Roth Michael F. Rothman Ivan B. Rubin Robert F. Sekerka Donald H. Sherman William D. Van Arnam C. Vishnevsky Jairus C. Warner F.W. Wiffen William M. Williams Alan D. Zunkel

#### **Legion of Honor 50-Year Members - Class of 1965 (continued)**

#### Association for Iron and Steel Technology (AIST)

Richard B. Bertolo Elmer G. Foley Richard J. Fruehan John G. Harhai Joseph N. Lynch Richard C. Meyer Sr. William J. Nelson Howard M. Pielet David B. Simpson Surjit Singh Sigurd M. Sorensen Brooks E. Weingart

#### Society of Petroleum Engineers (SPE)

Larry A. Aimes
Frank E. Ashford
Roger D. Atteberry
Ralph W. Baird
Robert D. Batten
Donald A. Bazer
C. A. Bell
Bruce E. Bernard

Bruce E. Bernard David W. Biegler Floyd R. Boen Arnold B. Booker Carroll L. Brewer Clinton Broughton Ralph D. Burks David L. Byers Rudolph P. Carrere Douglas K. Carriger Arthur D. Carter Jr. Stephen D. Chesebro Mark A. Childers Ronald D. Christie Rick D. Clark Gerald R. Coulter Thomas N. Dixon

Paul M. Dougan Robert E. Dreyling Iraj Ershaghi Stanford Eschner James W. Fairchild Thomas E. Fisher Robert E. Fox Walter F. Fox Jr.
D. A. Frawley
Sherman Fredrickson
John S. Gardner
Jerry K. Gause
Jagannath R. Ghole
Edward J. Gibbon Jr.
Rodrick E. Grant
Jacob M. Heidt
Thomas A. Hillin
J. Roger Hite
Larry O. Hulsey

T. K Kirk
Rajeshwar Kumar
Conrad E. Maher
D. Dan Manley
Arvel G. Martin
George E. McDonald
Michael P. Mcgrath
David L. Morrill
Douglas F. North
Van W. Orr

Hal K. Jarrell

Maurice M. Patterson Gene D. Pauling David M. Pritchard Frederick W. Rabalais Rajagopal S. Raghavan Charles E. Rhodes Herman H. Rieke John Wesley Ritz Rob L. Roark Charles W. Rogers
Richard H. Rowe
John L. Rowland
Lynn W. Schnell
Myles W. Scoggins Jr.
Sterling T. Seitz
Bahram Sheikholeslami
James E. Smith

Thomas M. Smith
Timothy J. Smith
Aller Spanninga
Alfred Stachel
Albert L. Stanford
F. M. Steckel
Victor D. Stiggins
Jess H. Stiles Jr.
Daniel H. Stright Jr.
Bennett Arthur Thomas
William W. Todd
Robert M. Toronyi
Craig W. Van Kirk

Jack E. Vaughn
Piet Hein Velzeboer
Owen M. Watkins Jr.
Richard A. Weaver
David R. Weekley
Rudolph W. Weibel
Richard M. Weinbrandt
Herbert G. Weinstein
John A. Whitney
Robert O. Winkler



**Financial Statements** 

For the Year Ended December 31, 2015

And

**Independent Auditors' Report** 

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#### INDEPENDENT AUDITORS' REPORT

**Board of Directors** 

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

We have audited the accompanying financial statements of American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. which comprise the statement of financial position as of December 31, 2015, and the related statements of activities, functional expenses and cash flows for the year then ended, and the related notes to the 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 auditor's 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.

Certified Public Accountants and Business Advisors 102 N. Cascade Avenue, Suite 400, Colorado Springs, CO 80903

#### **Opinion**

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. as of December 31, 2015, 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**

American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.'s 2014 financial statements were audited by other auditors who expressed an unmodified audit opinion on those audited financial statements in their report dated March 27, 2015. In our opinion, except for the effect of the prior period adjustment described in Note 2, the summarized comparative information presented herein as of and for the year ended December 31, 2014 is consistent, in all material respects, with the audited financial statements from which it has been derived.

Stockman Kast Ryan & Co., LLP

April 7, 2016

## STATEMENT OF FINANCIAL POSITION DECEMBER 31, 2015 (with comparative totals for 2014)

	2015	2014
ASSETS		
CURRENT ASSETS Cash and cash equivalents Accounts and grants receivable Inventory Prepaid expenses and other current assets	\$ 248,759 4,078 9,163 41,542	\$ 307,800 8,979 1,766 26,174
Total current assets	303,542	344,719
BENEFICIAL INTEREST IN PERPETUAL TRUST	348,679	388,841
INVESTMENTS	9,847,937	10,379,271
TOTAL ASSETS	<u>\$ 10,500,158</u>	<u>\$ 11,112,831</u>
LIABILITIES AND NET ASSETS		
CURRENT LIABILITIES Accounts payable and accrued expenses Member society grants	\$ 29,095	\$ 26,293 113,725
Total liabilities	29,095	140,018
NET ASSETS Unrestricted:		
Board designated	201,568	246,196
Other unrestricted	6,629,364	6,865,446
Temporarily restricted	2,857,950	3,038,828
Permanently restricted	782,181	822,343
Total net assets	10,471,063	10,972,813
TOTAL LIABILITIES AND NET ASSETS	\$ 10,500,158	<u>\$ 11,112,831</u>

See notes to financial statements.

### STATEMENT OF ACTIVITIES FOR THE YEAR ENDED DECEMBER 31, 2015 (with comparative totals for 2014)

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total	2014 Total
REVENUE					
Offshore technology conference fees	\$ 334,579			\$ 334,579	\$ 397,049
Royalties	41,627			41,627	73,825
Contributions	15,852			15,852	17,770
Grant initiatives					8,861
Copyright and other revenue	10,630			10,630	3,854
Change in beneficial interest in				(40.40)	
perpetual trust	(21 < 920)	Φ (06.544)	\$ (40,162)	(40,162)	
Investment income (loss)	(216,839)			(313,383)	213,111
Net assets released from restriction	84,334	(84,334)			
Total	270,183	(180,878)	(40,162)	49,143	724,667
EXPENSES Program services:					
Endowment spending	221,173			221,173	232,350
Strategic initiatives	136,565			136,565	110,029
Grants	40,000			40,000	113,725
Total program services	397,738	_	_	397,738	456,104
Supporting services:					
General and administrative	153,155			153,155	144,684
Total	550,893			550,893	600,788
CHANGE IN NET ASSETS	(280,710)	(180,878)	(40,162)	(501,750)	123,879
NET ASSETS, Beginning of year, as previously reported	7,111,642	3,038,828	822,343	10,972,813	10,470,290
Adjustment for recognition of beneficial interest in perpetual trust					378,644
NET ASSETS, Beginning of year, as restated	7,111,642	3,038,828	822,343	10,972,813	10,848,934
NET ASSETS, End of year	\$ 6,830,932	<u>\$ 2,857,950</u>	\$ 782,181	<u>\$ 10,471,063</u>	\$ 10,972,813

See notes to financial statements.

#### STATEMENT OF FUNCTIONAL EXPENSES FOR THE YEAR ENDED DECEMBER 31, 2015 (with comparative totals for 2014)

	2015												
	Program Services							Supporting Services					
		dowment pending		trategic nitiatives		Grants		Total Program Services		General and ninistrative	_	Total	2014 Total
Medals, awards and scholarships	\$	207,467	\$	2,225	\$	40,000	\$	249,692	\$	2,603	\$	252,295	\$ 223,702
Payroll and employee benefits		100						100		116,580		116,680	105,936
AIME Board meetings and travel		6,749		79,033				85,782		3,319		89,101	55,863
Meetings - external and other		6,834		37,298				44,132				44,132	54,466
Audit, legal and professional service				2,127				2,127		16,851		18,978	19,080
Supplies, postage, maintenance and repairs		23		3,801				3,824		10,846		14,670	15,199
Insurance										1,585		1,585	1,554
Member society grants													113,725
Depreciation													493
Other				12,081				12,081		1,371		13,452	10,770
TOTAL	\$	221,173	\$	136,565	\$	40,000	\$	397,738	\$	153,155	\$	550,893	
PERCENTAGE		40%		25%	_	7%		72%		28%	_	100%	
TOTAL - 2014	\$	232,350	\$	110,029	\$	113,725	\$	456,104	\$	144,684			\$ 600,788
PERCENTAGE - 2014		39%		18%		19%		76%		24%			100%

#### STATEMENT OF CASH FLOWS FOR THE YEAR ENDED DECEMBER 31, 2015 (with comparative totals for 2014)

	2015	2014
OPERATING ACTIVITIES		
Change in net assets	\$ (501,750	) \$ 123,879
Adjustments to reconcile change in net assets to net cash	,	
used in operating activities:		
Depreciation		493
Realized and unrealized (gains) losses on investments	481,850	(8,300)
Change in beneficial interest in perpetual trust	40,162	
Changes in operating assets and liabilities:	•	, , ,
Accounts and grants receivable	4,901	25,021
Inventory	(7,397	
Prepaid expenses and other current assets	(15,368	(3,477)
Accounts payable	2,802	
Member society grants	(113,725	(381,275)
Net cash used in operating activities	(108,525	(246,698)
INVESTING ACTIVITIES		
Purchases of investments	(8,160,673	(268,039)
Proceeds from sales of investments	8,210,157	, , , ,
Net cash provided by investing activities	49,484	395,324
INCREASE (DECREASE) IN CASH AND		
CASH EQUIVALENTS	(59,041	148,626
CASH AND CASH EQUIVALENTS, Beginning of year	307,800	159,174
CASH AND CASH EQUIVALENTS, End of year	\$ 248,759	\$ 307,800

See notes to financial statements.

#### NOTES TO FINANCIAL STATEMENTS

#### 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

**Nature of Operations** — Organized in 1871, the American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. (AIME) is a professional 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 mission is to support its member societies. AIME fulfills this mission by:

- Exercising fiscal responsibility
- Distributing funds
- Facilitating interaction with the larger scientific and engineering communities
- Enhancing collaboration among the member societies
- Honoring the legacy and traditions of AIME

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). The AIME financial statements do not include the accounts of the four member societies.

The Board of Trustees is made up of an equal number of representatives from each of the 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 —AIME is required to report information regarding its financial position and activities according to three classes of net assets: unrestricted net assets, which represents the expendable resources that are available for operations at management's discretion; temporarily restricted net assets, which represents resources restricted by donors as to purpose or by the passage of time; and permanently restricted net assets, which represents resources whose use by AIME is limited by donor-imposed stipulations that neither expire by passage of time nor can be fulfilled or otherwise removed by actions of AIME.

The accompanying financial statements include certain prior-year summarized comparative information in total. Such information does not include sufficient detail to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with AIME's financial statements for the year ended December 31, 2014, from which the summarized information was derived, except for the effect of the prior period adjustment as described in Note 2.

**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 and Grants Receivable — Accounts and grants receivable are stated at the invoice amount. Management provides for probable uncollectible amounts through a provision for bad debts and an adjustment to a valuation allowance based on its assessment of the current status of individual accounts. As of December 31, 2015 and 2015, all accounts and grants receivable are considered to be fully collectible and, accordingly, no allowance for uncollectible accounts is considered necessary.

**Inventory** — Inventory is valued at estimated cost and consists of minor medals and award items and marketing materials.

**Investments** — Investments in equity securities having a readily determinable fair value and all debt securities and alternative investments are carried at fair value. Investment return includes dividend, interest and other investment income; realized and unrealized gains and losses on investments carried at fair value; and realized gains and losses on other investments.

**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 Society Grants** — When sufficient funds are available as determined by the Board of Directors, 50% of net income is distributed equally to the member societies, and 20% of net income (capped at \$200,000) is allocated to matching or collaborative grants. The latter are for overarching programs (programs conducted by two or more member societies that carry out AIME's purpose) upon approval by the Board of Directors.

**Revenue Recognition** — Contributions received are recorded as unrestricted, temporarily restricted or permanently restricted net assets, depending on the existence or nature of any donor restrictions. When a donor restriction is met, temporarily restricted net assets are reclassified to unrestricted net assets and reported in the statement of activities as net assets released from restrictions. Conference fees are recognized as revenue once related services are performed or events are held. Grant revenue is recognized when the grant requirements or terms have been fulfilled. Other revenues are recognized when earned.

**Income Taxes** — AIME is exempt from federal income taxes under Section 501(c)(3) of the Internal Revenue Code. AIME believes that it does not have any uncertain tax positions that are material to the financial statements.

AIME 's tax returns for 2012 through the current year remain open to examination by the Internal Revenue Service and relevant state authorities.

**Use of Estimates** — 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.

**Reclassifications** — Certain prior year amounts have been reclassified to conform with the current year presentation.

Adoption of Accounting Standards Updates – In May 2015, the Financial Accounting Standards Board (FASB) issued ASU 2015-07, *Fair Value Measurement (Topic 820)*. ASU 2015-07 removes the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient and removes the requirement to make certain disclosures for such investments. ASU 2015-07 is effective for fiscal years beginning after December 15, 2016. Management of AIME has elected to adopt ASU 2015-07 early. All provisions of ASU 2015-07 have been applied to the 2015 and 2014 disclosures in the accompanying notes.

**Subsequent Events** — AIME has evaluated subsequent events for recognition or disclosure through the date of the Independent Auditors' Report, which is the date the financial statements were available for issuance.

#### 2. PRIOR PERIOD ADJUSTMENT

During the year ended December 31, 2015, AIME determined that it had a beneficial interest in a perpetual trust that had not been recognized in its financial statements. Accordingly, AIME made an adjustment to record the beneficial interest in the perpetual trust as of the beginning of the year ended December 31, 2014. The effect of the adjustment on the 2014 financial statements was to increase net assets as of January 1, 2014 by \$378,644, increase 2014 revenue by \$10,197, and increase net assets as of December 31, 2014 by \$388,841. See Note 4.

#### 3. CONCENTRATION OF RISK

AIME maintains its cash and cash equivalents in bank deposit accounts which, at times, exceed federally insured limits. AIME has not experienced any losses in such accounts.

AIME has investments in exchange traded funds, common stock, real estate investment trusts, fixed income securities and private equity limited partnerships which it has placed with an investment management company. AIME invests in investment securities which are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investments will occur in the near term and that such changes could materially affect the recorded amount of investments in AIME's financial statements. AIME's private equity limited partnership investments are recorded at their net asset value as determined by the funds (see Note 5). Actual fair value of the investments upon liquidation could vary significantly from the current estimated fair value.

#### 4. BENEFICIAL INTEREST IN PERPETUAL TRUST

AIME is the sole beneficiary of the Howard N. Eavenson Trust (the Trust), a trust whose principal is to be held in perpetuity. Assets of the Trust are invested and administered by a trustee and distributions are made to AIME. Assets of the Trust consist of cash and cash equivalents and mutual funds. AIME records its interest in the Trust at the fair value of the assets held by the Trust. Fair value of the underlying assets is determined using quoted market prices and pricing services. As of

December 31, 2015 and 2014, the beneficial interest in the Trust was \$348,679 and \$388,841, respectively. AIME received \$15,852 and \$17,770 in distributions from the Trust during the years ended December 31, 2015 and 2014, respectively.

#### 5. INVESTMENTS AND FAIR VALUE MEASUREMENTS

AIME is required to use a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described below:

Level 1: Unadjusted quoted prices in active markets for identical assets or liabilities that AIME has the ability to access.

Level 2: Prices determined using significant other observable inputs. Inputs to the valuation methodology include:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability;
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3: Prices determined using significant unobservable inputs.

The investment's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs. The classifications (Level 1, 2 and 3) are intended to reflect the observability of inputs used in the valuation of investments and are not necessarily an indication of risk or liquidity.

Following is a description of the valuation methodologies used for instruments measured at fair value on a recurring basis and recognized in the accompanying statements of financial position, as well as the general classification of such instruments pursuant to the valuation hierarchy.

Common Stocks, Exchange Traded Funds, Preferred Securities, Real Estate Investment Trusts and Mutual Funds — Fair value is determined principally through quoted market prices in active markets.

*Corporate Bonds* — Price is determined by the asset custodian based on quoted prices for identical or similar assets in active markets.

Private Equity Limited Partnerships — Valued at net asset value of the respective investments as a practical expedient to estimate fair value. This practical expedient would not be used if it is determined to be probable that the investment will be sold for an amount different from the reported net asset value. See below for further information on these investments measured using the net asset value practical expedient.

The preceding methods may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although AIME believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following tables set forth by level, within the fair value hierarchy, AIME's assets measured on a recurring basis stated at fair value as of December 31:

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Observable	Significant Unobservable Inputs (Level 3)	Total
2015: Common stocks Cash and cash equivalents Exchange traded funds Corporate bonds Preferred securities Real estate investment trust	\$ 2,617,485 2,613,682 2,012,774 76,980 50,601	\$ 1,666,498		\$ 2,617,485 2,613,682 2,012,774 1,666,498 76,980 50,601
Total Beneficial interest in trust	7,371,522 348,679	1,666,498	\$ —	9,038,020 348,679
Total in fair value hierarchy Investments measured at net asset value Total investments	<u>\$ 7,720,201</u>	\$ 1,666,498	<u>\$</u>	9,386,699 <u>809,917</u> \$ 10,196,616
2014: Equity mutual funds Fixed income mutual funds Cash and cash equivalents	\$ 5,093,353 2,559,726 824,190			\$ 5,093,353 2,559,726 824,190
Total Beneficial interest in trust	8,477,269 388,841	\$ — ———	\$ — ———	8,477,269 388,841
Total in fair value hierarchy Investments measured at net asset value	\$ 8,866,110	<u>\$</u>	<u>\$</u>	8,866,110 1,902,002
Total investments				\$ 10,768,112

The availability of observable market data is monitored to assess the appropriate classification of financial instruments within the fair value hierarchy. Changes in economic conditions or valuation techniques may require the transfer of financial instruments from one fair value level to another.

**Investments that Calculate Net Asset Value** — The following summarizes liquidity considerations for investments measured at fair value that calculate net asset value per share as a practical expedient at December 31, 2015:

Investments	Fai	r Value	funded mitments	Redemption Frequency	Redemption Period	on Term
Private Equity Offshore Fund V Limited	\$	138,597	\$ 49,995	*	N/A	15 years with three 1-year options begin- ning in 2005
Private Equity Offshore Fund VI Limited		213,359	38,029	*	N/A	15 years with three 1-year options begin- ning in 2007
Private Equity Offshore Fund VII Limited		259,201	73,708	*	N/A	15 years with three 1-year options begin- ning in 2008
Private Equity Offshore Fund VIII Limited		109,735	32,053	*	N/A	15 years with three 1-year options begin- ning in 2011
Private Equity Offshore Fund IX Limited		89,025	111,084	*	N/A	15 years with three 1-year options begin- ning in 2012
Total	\$	809,917				

<sup>\*</sup> Shareholders do not have the right to redeem any shares without the consent of the fund manager.

Investment income (loss) consists of the following for the years ended December 31:

	2015			2014		
Net realized and unrealized gains (losses) Dividends and interest Other investment income	\$	(481,850) 234,238 189	\$	8,300 268,039 135		
Total Investment advisory fees		(247,423) (65,960)		276,474 (63,363)		
Total investment income (loss)	\$	(313,383)	\$	213,111		

#### 6. TRANSACTIONS WITH AFFILIATES

During the year ended December 31, 2015, AIME remitted \$2,374,200 to the member societies. Of this amount, \$1,895,947 were funds received from the Offshore Technology Conference and passed on to the member societies, \$106,808 were reimbursements to SME for payroll and employee benefits expenses, \$113,725 was for the 2014 member society direct distributions which were paid in 2015, \$160,720 was for awards, scholarships and other various reimbursements, and the remaining \$97,000 was for grants to the member societies.

During the year ended December 31, 2014, AIME remitted \$3,068,975 to the member societies. Of this amount, \$2,249,942 were funds received from the Offshore Technology Conference and passed on to the member societies, \$98,630 were reimbursements to SME for payroll and employee benefits expenses, \$495,000 was for the 2013 member society direct distributions which were paid in 2014 and the remaining \$225,403 was for awards, scholarships and other various reimbursements.

#### 7. BOARD DESIGNATED NET ASSETS

The Board of Directors has designated net assets for the following purposes at December 31:.

	2015			
150 <sup>th</sup> anniversary	\$ 120,710	\$	123,098	
Collaborative grants	 80,858		123,098	
Total	\$ 201,568	\$	246,196	

#### 8. TEMPORARILY RESTRICTED NET ASSETS

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

	2015	2014
Medals and awards	\$ 1,111,227	\$ 1,168,045
Scholarships	843,878	903,618
Specific use	902,845	967,165
Total	<u>\$ 2,857,950</u>	\$ 3,038,828

#### 9. ENDOWMENT

AIME's endowment consists of 19 separate funds with donor-restrictions where only the income may be spent for the charitable purposes stipulated in the related trust documents. As required by accounting principles generally accepted in the United States of America (GAAP), net assets associated with endowment funds are classified and reported based on the existence or absence of donor-imposed restrictions.

The State of New York and the State of Colorado have adopted the *Uniform Prudent Management of Institutional Funds Act* (UPMIFA or the Act). The Act provides statutory guidance for management, investment and expenditures of endowment funds held by not-for-profit organizations. AIME has interpreted UPMIFA as requiring the preservation of the fair value of the original gift as of the gift date of the donor-restricted endowment funds absent explicit donor stipulations to the contrary. As a result of this interpretation, AIME classifies as permanently restricted net assets (a) the original value of gifts donated to the permanent endowment, and (b) accumulations to the permanent endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund. The remaining portion of the donor-restricted endowment fund that is not classified in permanently restricted net assets is classified as temporarily restricted net assets until those amounts are appropriated for expenditure by AIME in a manner consistent with the standard of prudence prescribed by UPMIFA. In accordance with UPMIFA, AIME considers the following factors in making a determination to appropriate or accumulate donor-restricted endowment funds:

- 1. The duration and preservation of the endowment fund
- 2. The purposes of the institution and the endowment fund
- 3. General economic conditions
- 4. The possible effect of inflation and deflation
- 5. The expected total return from investment income and appreciation or depreciation of investments
- 6. Other resources of the Institution; and
- 7. The investment policies of the Institution

Changes in endowment net assets for the year ended December 31, 2015 are as follows:

	Unrestricted					ermanently Restricted		Total	
Endowment net assets,	Ф	1.45.0.40	Φ	2 77 ( 070	ф	010 146	Ф	2 525 065	
January 1, 2014, as restated Investment return:	\$	145,940	<u>\$</u>	2,776,979	\$	812,146	\$	3,735,065	
Investment income		3,690		73,948				77,638	
Net appreciation (realized and unrealized)	_	222		5,787		10,197		16,206	
Total investment return		3,912		79,735		10,197		93,844	
Appropriations for expenditures		(1,058)	_	(115,405)				(116,463)	
Endowments net assets,									
December 31, 2014		148,794		2,741,309		822,343		3,712,446	
Investment return: Investment income Net depreciation (realized		3,304		64,757				68,061	
and unrealized)		(6,930)		(134,615)		(40,162)		(181,707)	
Total investment return		(3,626)		(69,858)		(40,162)		(113,646)	
Appropriations for expenditures		(1,351)		(102,342)				(103,693)	
Endowments net assets, December 31, 2015	\$	143,817	\$	2,569,109	\$	782,181	\$	3,495,107	

From time to time, the fair value of assets associated with individual donor-restricted endowment funds may fall below the level AIME is required to retain as a fund of perpetual duration pursuant to donor stipulation or UPMIFA. In accordance with GAAP, deficiencies of this nature are reported in unrestricted net assets. There were no such deficiencies as of December 31, 2015 and 2014.

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.

To satisfy its long-term rate of return objectives, AIME relies on a total return strategy in which investment returns are achieved through both current yield (investment income such as dividends and interest) and capital appreciation (both realized and unrealized). AIME targets a diversified asset allocation that places a greater emphasis on equity-based investments to achieve its long-term return objectives within prudent risk constraints. Equity-based investments include large-cap, small-cap and international equities. AIME also uses fixed income securities and alternative investments to achieve its objectives.

#### **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: <a href="mailto:sme@smenet.org">sme@smenet.org</a>



#### The Minerals, Metals & Materials Society

184 Thorn Hill Road, Warrendale, PA 15086 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 Phone: 724-814-3000, Fax: 724-814-3001

Internet: www.aist.org/ E-mail: info@aist.org



#### **Society of Petroleum Engineers**

PO Box 833836, Richardson, TX 75083-3836 Phone: 972-952-9393, Fax: 972-952-9435

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