American Institute of Mining, Metallurgical, and Petroleum Engineers

# 2022 ANNUAL REPORT



12999 East Adam Aircraft Circle Englewood, Colorado 80112 Phone 1-303-948-4255 http://www.aimehq.org

## Member Societies:









## **Table of Contents**

Report of the 2022-2023 AIME Leadership: The Year in Review
President's Notes[6]
Report of the 151st Annual Meeting
New AIME 2022-2023 Officers and Trustees
AIME Past Presidents – Active List
Recipients of Awards Presented by AIME in 2022
Recipients of Scholarships Presented by AIME in 2022
AIME Honorary Members [22]
Legion of Honor – 50 Year Members – Class of 1972 [24]
Financials[26]
Member Societies[44]

## **The Year in Review**



Jennifer Miskimins 2022 President



Michele Lawrie-Munro Executive Director

# Report of the 2022 – 2023 AIME Leadership

#### **Mission-Driven Governance**

AIME is governed by a <u>Board</u> including 2 Trustees from each of its 4 Member Societies and AIME's Executive Director. One is a volunteer leader serving in the presidential rotation for a four-year term; the other is the Member Society Executive Director serving continually to help provide continuity of mission-driven direction. Most work is done by AIME's Audit, Investment, and History and Heritage Committees. We thank Member Society staff and volunteers, like the Member Society CFOs, also serving on AIME committees and external award committees administered by AIME's sister organizations, as shown on the following page:

		AIN	NE Activities 202	2_2022 EINAI			
			IE ACUVIUGS ZUZ				
	Audit Committee	Investment Committee	History & Heritage Committee	External Affairs  United Engineering Foundation (1 volunteer, 1 ED)	Funds Characterization Committee	Member Society Direct Sustainability Committee	Oil and Gas Interest Committee
Rules	MSEDs, President- Elect Designate ex- officio; meets November (pre- audit) and April (post audit)	President- Elect/Treasurer Chair, MS Finance Staff; meets 4th Thursday after end of quarter	Past President Chair; meets a month or two prior to Board meetings	AIME Board direct oversight	ad hoc established 2/2/2021	ad hoc established 2/2/2021	ad hoc established 8/2/2019
SPE	Mark Rubin	Steve Byrne	Mark Rubin	Roland Moreau (through September 2023)	Mark Rubin	Steve Byrne (Chair); Jennifer Miskimins	Mark Rubin; Jennifer Miskimins
тмѕ	Jim Robinson	Liz Holm (Chair); Alicia Arbuckle	Jim Robinson	Ron Ashburn (through September 2025)	Jim Robinson	Alicia Arbuckle; Liz Holm	Liz Holm
SME	Dave Kanagy (optional); Steve Gardener	Michelle Kroeger	Dave Kanagy		Dave Kanagy (Chair)	Michelle Kroeger	Steve Gardner
AIST	Ron Ashburn (Chair)	Mark Didiano	Kevin Zeik (Chair)		Ron Ashburn; Kevin Zeik	Mark Didiano	Kevin Zeik
AIME	Michele Lawrie- Munro	Michele Lawrie- Munro	Michele Lawrie-Munro		Michele Lawrie- Munro	Michele Lawrie- Munro	Michele Lawrie- Munro
			ETHW Council	Emerging Leaders Alliance			
SPE			Glenda Smith (as able)	James Whitaker			
TMS			Lynne Robinson (as able) Jane Olivier (as able)	Debby Hixon			
SME				Mona Vandervoort Chris McKelvey, Jamie			
AIST			Chris McKelvey (as able)  Michele Lawrie-Munro,	Blick Michele Lawrie-Munro			
AIME			Chair	(limited participation)			
			Member Society Award and Scholarship Ctes	Hoover Award			
SPE			Various	Zhenhua "Ray" Rui; Alternate: Yogashari Pradhan			
TMS			Various	Oladele A. Ogunseitan			
SME			Various	Ponisseril Somasundaran, Alternates: Tuncel Yegulalp, Bob Schafer			
AIST			Various	J			
AIME							
SPE				Noble Prize			
TMS				Peter C. Collins			
SME							
AIST				Washington Award			
SPE				Oluwabiyi Awotiku			
TMS				Tom Battle			
SME							
AIST				National Inventors			
SPE				Carlos Torres-Verdin,			
TMS				UT Austin			
SME				Anuradha Khetwal; Bowen Li			
AIST				DOWELLE			
				James Furman Kemp Memorial Fund for Research and Publication in Geology Advisory Council			
SPE				Mark Sonnenfeld			
TMS							
SME							
AIST							

AIME's most recent Past President from AIST, <u>Kevin Zeik</u>, chairs **AIME's History and Heritage Committee**, whose main **focus** is **on AIME awards and scholarships**, **oral histories**, **and milestone recognition**.

#### **AIME Awards and Scholarships**



AIME funds 25 awards, including Honorary Membership, as well as 5 scholarships. The AIME President presents them during each Member Society's conference. Additionally, Member Society members are eligible for 25 other joint engineering society awards.

Volunteers from AIME's Member Societies provide representation on committees for joint society awards administered by AIME's sister societies. For example, ASME staff administers the prestigious <a href="Hoover Medal">Hoover Medal</a>, and AIME's Member Society, SME, administers the <a href="Fritz Medal">Fritz Medal</a>. To learn more, visit <a href="https://aimehq.org/what-we-doawards">https://aimehq.org/what-we-doawards</a>.



To nominate a member for an award, contact your AIME Trustees for guidance.

#### **Oral Histories**

AIME's most recent flagship program has been building its <u>oral history library</u>, which includes 6 remote captures since 2020, due to the COVID-19 pandemic.



We are proud to share over 79 of these fascinating learning opportunities on <u>AIME's Oral History webpages</u>. The collection includes audio only and video captures done by the University of California – Berkeley's Bancroft Library Oral History Center, an early partner on this program. Click the "Submit a Candidate" link on the main page to download a form to complete to nominate someone for this important preservation and recognition initiative.

#### **Milestone Recognition**

AIME also recognizes important milestones with congratulatory or memorial resolutions. To learn more, visit https://aimehq.org/what-we-do/milestone-recognition.

#### **Collaborative Programs**



AIME is one of 9 partners in the <u>Emerging Leaders</u> <u>Alliance (ELA) young leaders training</u>. AIST staff administers this important joint society initiative. The groups host about 75 impressive young professionals in Pittsburgh each September.

AIME partners with 6 other groups to enhance the Engineering and Technology History Wiki (<a href="www.ethw.org">www.ethw.org</a>), administered by AIME's sister engineering Founder Society, IEEE. This invaluable resource contains articles, biographies, and interviews of important figures and historical events and innovations in multiple engineering disciplines. There are also lesson plans and an interactive map of landmarks across the globe. Members can create a free account to include their own "First Hand Histories".





As part of the partnership with AIME's sister engineering Founder Societies, AIME and Member Society leadership attend the <u>United Engineering Foundation (UEF)</u> Board meeting each fall.

#### **Foundational Role**

Finally, one of AIME's most important roles has been to provide grants from any surpluses to the Member Societies. For example, in 2021, the AIME Board voted to distribute \$1,000,000 (\$250,000 to each of the 4 groups) to assist with impacts of the pandemic. AIME also provides all Member Societies annual grants from the <a href="Offshore Technology Conference events">Offshore Technology Conference events</a> and the following endowment funds for specific purposes:



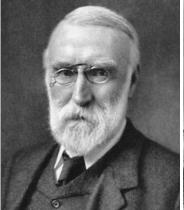
Seeley W. Mudd

James Douglas Library

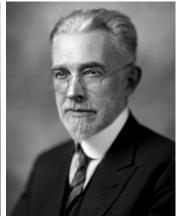
**Charles Hayden** 

Henry L. Doherty









#### The Next 150



Surpassing AIME's 150th year, the AIME Board contemplated the appropriate operating structure moving forward. For stability, AIME has contracted with Inventures to manage the Institute beginning June 2023.

Inventures is an association management company (AMC) founded in 1992 headquartered in San Ramon, CA. Its focus is on not-for-profit associations, technical alliances, and societies.

As a subsidiary of Smithbucklin, a leading global AMC, it has access to all of that firm's capabilities, as needed. The partnership is also expected to save annual operating expense.

smithbucklin•

A Michele Yaurie Munro

Jennifer Miskimins 2022 President Michele Lawrie-Munro Executive Director

## **President's Notes**

It has been an honor and a privilege to serve as the 2022 President of AIME. When I was asked to serve on the AIME Board as a representative from my home society of SPE, I was thrilled for many reasons. First, being offered another opportunity to serve SPE in a new and different capacity, but then, I was also so excited to learn more about the original society that SPE, SME, AIST, and TMS stemmed from and the deep history that it represents. I have not been disappointed!

As I look back at my tenure on the AIME Board, starting in 2018 as a Trustee and now as the President, the best statement to sum up the past five years would be (as the saying goes) the only thing that doesn't change is change itself. During my time on the AIME Board, we have endured a global pandemic, celebrated AIME's 150th anniversary, and stewarded a change to the Board membership to include the Executive Directors of the four member societies. And now, during the past year, another change is on the horizon. After 20 years with AIME, including serving as the Executive Director for the past 12 years, Michele Lawrie-Munro is retiring. During her time with AIME, Michele has been the heart and soul of the organization overseeing the Board membership, organizing the various committee meetings, and tending to the history of AIME. Her dedication and commitment will be sorely missed!

With the retirement of AIME's Executive Director and sole individual employee, the Board opted to hire a management firm to take over organization and management of AIME. After a nationwide search led by my predecessor and 2021 AIME President, Dr. Kevin Zeik, the AIME Board hired Inventures, and during the first half of 2023, we have worked with the Inventures personnel to transition the management of AIME under their stewardship. As one would imagine, such has not been without its bumps, but overall the transition has gone quite smoothly with the help of Inventures personnel John Ehrig and Jamie Reyes. John and Jamie have joined Michele and myself at the 2023 annual meetings for SME, TMS, and AIST and have gotten to know those organizations by attending various events and board meetings. They started after the SPE annual meeting in the fall of 2022 but have made multiple efforts to engage with that member society also. I know that AIME is set up for success under John, Jamie, and Inventures' new leadership.

There are many people whom I need to thank for their help and advice during the course of my presidency. I would like to acknowledge my other Board members who have acted with the utmost professionalism with eyes to the future as we navigate these new administrative waters. I have very much enjoyed getting to know and learn from them all. I would also like to acknowledge Kevin Zeik and Michele Lawrie-Munro for their unwavering aid in the transition to Inventures. Finally, as I serve as only the second woman president of AIME, I would like to recognize the first, Dr. DeAnn Craig, who was the 2010 AIME President. DeAnn was a friend and mentor to me and many other people throughout the years, and I miss her counsel and her no-nonsense approach. I know I am not the only one.

All of us that serve on the AIME Board and as officers of the society are ongoing caretakers for the future of the society. AIME has endured for +150 years, and as the 2021 President, Dr. Zeik, stated, we have now

## **President's Notes**

entered into the "Next 50 Years". I am proud to have served as one of AIME's many presidential stewards over its long and illustrious history, and I look forward to supporting Dr. Elizabeth Holm as she steps in next as the 2023 AIME President. I believe you will see via this 2022 Annual Report that AIME is on strong financial ground and in good hands as it enters its 153rd year.

2022 AIME President

## **Report of the 151st Annual Meeting**

AIME leadership was excited to hold its 151st annual Board meeting at AIST in Warrendale, PA on Thursday, August 4th, and Friday, August 5th with its President, United States Steel's Senior Research Fellow, Sustainability & Innovation (and AIST member), Kevin Zeik, presiding. He welcomed everyone to "Steel City" at a Vue 412 dinner atop Mount Washington overlooking Pittsburgh's beautiful city scape. Things kicked off the next morning over breakfast with AIST staff and a tour of the recently renovated offices. Attendees were impressed by the sleek, industrial and functional spaces. They also appreciated the nod to the past in the centrally located Brimacombe Board Room. The Board continued its important work on optimization of endowment spending, awards and recognition, and operations.

That afternoon Kevin's workmates provided an overview of the steelmaking process at their Mon Valley Works Edgar Thomson plant. The group endured 125 degree temperatures as they witnessed the processing of products for which Pittsburgh has been historically renowned. It was then treated to stories of the engineering marvels spanning the city's waterways on the Rivers of Steel Explorer vessel. Camaraderie was shared and officers were recognized, while enjoying fine fare and libations from the Black Radish Kitchen and Lo Bar Cocktail Services. Additional photos can be found on AIME's social media pages via the links in the upper right corner of its, <a href="https://www.aimehq.org">www.aimehq.org</a>.







## **New AIME 2023-2024 Officers and Trustees**

#### **PRESIDENT**



Elizabeth Holm (TMS - Term ends 2025)

Elizabeth A. Holm is a Professor of Materials Science and Engineering at Carnegie Mellon University. Prior to joining CMU in 2012, she spent 20 years as a research scientist at Sandia National Laboratories. Her research areas include computational materials science at the atomic and mesoscale and AI and machine learning for materials science. Dr. Holm obtained her B.S.E in Materials Science and Engineering from the University of Michigan, S.M in Ceramics from MIT, and dual Ph.D. in Materials Science and Engineering and Scientific Computing from the University of Michigan. Dr. Holm has received several honors and awards, is a Fellow of ASM

International and the Minerals, Metals, and Materials Society (TMS), 2013 President of TMS, an organizer of numerous international conferences, and has been a member of the National Materials Advisory Board. Dr. Holm has authored or co-authored over 160 publications.

#### PRESIDENT-ELECT



J. Steven Gardner (SME - Term ends 2026)

He served as President/ CEO of ECSI, LLC for 36 years, a consulting practice focused on natural resources, mining, reclamation, energy, environmental, health and safety issues. In January 2019 ECSI merged with SynTerra Corp. where he now serves as VP Special Projects, Mining & Energy.

Mr. Gardner has an MS Mining Engineering, Graduate Certification in Environmental Systems and BS Agricultural Engineering from the University of Kentucky. In 2011, he was inducted into the UK Engineering Hall of Distinction. As a Professional Engineer,

he has worked on projects throughout the US and internationally. Early in his career, he served on a Volunteer mine rescue team.

He was 2015 President of the Society for Mining, Metallurgy and Exploration (SME) and recognized as a Distinguished Member and Registered Member. Currently he serves as the Vice President of Finance for the SME Foundation. He has worked as an engineer, owner and manager in both mining operations and consulting. He served on the UK Mining Engineering Foundation, Kentucky Geological Survey, Biosystems & Agricultural Engineering Advisory Boards and was a member of the Kentucky Board of Licensure for Professional Engineers and Surveyors.

#### PRESIDENT-ELECT DESIGNATE



Ron O'Malley (AIST - Term ends 2027)

Ronald J. O'Malley received B.S. and M.S. degrees in materials engineering from Drexel University in 1978 and a Ph.D. in metallurgy from the Massachusetts Institute of Technology in 1983. In 1984, he joined Alcoa's research center to work on casting and refining technologies in aluminum. In 1988, he joined Armco Inc.'s Technology Center in Middletown, Ohio, which later became part of AK Steel, where he conducted steelmaking and casting research and development for a diverse mix of flat rolled specialty steels, including developments in the thin-slab casting of stainless steels at AK Mansfield. He is currently employed as chief metallurgist at Nucor Steel–Decatur

LLC, where he is responsible for metallurgical development and for steelmaking and casting process support within Nucor. Dr.O'Malley has published numerous papers in the fields of continuous casting and steel processing, has taught numerous short courses on the continuous casting of carbon and specialty steels, and was the recipient of the 1999 Charles Herty Jr. award. He is currently serving as the Conference Planning Committee chair for AISTech 2013, papers chair for the Continuous Casting Technology Committee (CCTC) for AISTech 2012, chair for the Materials Advantage Committee for 2013, and is a lecturer for the AIST short courses "Continuous Casting — A Practical Training Seminar" and "The Making, Shaping and Treating of Steel." He has previously served on the AIST board of directors as liaison for the CCTC and the Ladle & Refining Technology Committee. He is also currently serving on the selection committee for the FeMET and StEEL student scholarships and the selection committee for the Elliott Lectureship Award.

#### PAST PRESIDENT



Jennifer Miskimins (SPE - Term ends 2024)

Dr. Jennifer L. Miskimins is a Professor and the Department Head of the Petroleum Engineering Department at the Colorado School of Mines, where she holds the F.H. Mick Merelli/Cimarex Energy Distinguished Department Head Chair. Dr. Miskimins holds BS, MS, and PhD degrees in petroleum engineering and has split her career between industry and academia with appointments at the Colorado School of Mines, Marathon Oil Company and Barree & Associates. She has been with the Colorado School of Mines in various capacities since 2002. Dr. Miskimins specializes in well completions, stimulation, hydraulic fracturing, and associated production issues. She

is the founder and current Director of the Fracturing, Acidizing, Stimulation Technology (FAST) Consortium and also directs the Center for Earth Materials, Mechanics, and Characterization (CEMMC). Her research interest focus on the optimization of stimulation treatments and the importance of such on associated recovery efficiencies.

Dr. Miskimins served as the first Completions Technical Director on the SPE International Board of Directors from 2015-2018. She was an SPE Distinguished Lecturer in 2010-2011 and 2013-2014 on hydraulic fracturing in unconventional reservoirs. In 2014, she was awarded the SPE International Completions Optimization and

Technology Award. Dr. Miskimins serves on a variety of conference organizing committees and as a technical editor for various journals. She was the Editor-in-Chief for the recent SPE Monograph update Hydraulic Fracturing: Fundamentals and Advancements. Dr. Miskimins is a registered Professional Engineer in the State of Colorado (License #36193).

## **Non-Officer Trustees**



Ronald Ashburn (AIST)

Ronald Ashburn is the first executive director of the Association for Iron & Steel Technology (AIST), having served in that capacity since the organization's founding in January 2004. In his role as executive director, Ashburn is responsible for oversight of business operations and strategic planning initiatives for AIST and the AIST Foundation. He formerly served as the eighth managing director for the Association of Iron and Steel Engineers from 2002 until its merger with the Iron & Steel Society, which led to the formation of AIST. Prior to joining AISE, he worked 16 years with Mannesmann Demag, a global builder of steel plants, first joining

them in 1986 as a mechanical engineer in their Continuous Casting Division. In 1996, Ashburn was appointed director of technology for steelmaking and casting, and in 1997 he became vice president — casting and hot rolling. In 1999, SMS and Mannesmann Demag merged to form SMS Demag, where he served as vice president — operations for their Steelmaking and Casting Division in Pittsburgh, Pa., USA. Ashburn received his B.S. degree in mechanical engineering from the University of Pittsburgh (1987) and participated in metallurgical process training at University of British Columbia (1987) and global business management training at the University of Virginia (1998). He served on the board of directors for Visit Pittsburgh and was a member of its executive committee.



Simon Seaton (SPE)

Before joining SPE, Seaton most recently held the role of CEO, Energy and Resources Worldwide, at Sodexo, a global food, facilities management, and workplace services company where he worked since 2012 in Houston, Singapore, and Dubai. A graduate of Cardiff University and a chemist by education, his career began as a drilling fluids engineer. He spent 22 years at Halliburton in various technical, business development, and executive roles in Aberdeen, Houston, and Nigeria. Positions at Halliburton included country vice president, managing director of the UK, and senior director of deepwater solutions. Seaton

has been an SPE member for more than 25 years and has authored or co-authored more than 20 technical papers, patents, and articles and, in 2021, completed the Global Energy Leadership Program at the Jones Graduate School of Business, Rice University. Originally from the UK, he currently resides in Houston.

A member of SPE since 1979, Rubin held petroleum engineering positions for Unocal in Houston and east Texas from 1981 to 1987 and for Buttes Resources in Dallas 1987–88. Rubin is a member of the American Society of Association Executives and Council of Engineering and Scientific Society Executives. He has been a member of the National Petroleum Council, Interstate Oil and Gas Compact Commission, and International Association of Oil and Gas Producers. He earned a BS degree in petroleum engineering from Texas A&M University and an MBA from Southern Methodist University.



Jim Robinson (TMS)

James J. Robinson has held a number of positions within TMS since joining the Society in 1984 as an editorial team member for JOM.Prior to becoming executive director in 2012, he held the position of deputy executive director. In that position, Robinson managed the development and execution of the Society's programs and supported the Board of Directors, the Executive Committee, and other volunteer bodies, inclusive of governance and strategic planning activities. He also supports the efforts of the TMS Foundation as an ex-officio member of the Board of Trustees. Robinson's past positions with the Society include serving as Chief

Operating Executive, Director of Knowledge Management and Communication, and Editor of JOM (TMS's membership journal). He still contributes to JOM as a monthly columnist.

Robinson is an ASAE Certified Association Executive (2009). Academically, he earned his M.A., corporate communication, from Duquesne University (Pittsburgh, Pennsylvania) and his B.A., journalism and communications, from Point Park University (Pittsburgh, Pennsylvania). His non-materials professional affiliations include ASAE, the Council of Engineering and Scientific Society Executives, and the Pittsburgh Society of Association Executives.



Executives.

# Dave Kanagy (SME)

Since joining SME in 2004, Kanagy has been largely responsible for the Society's success. Focusing on growth, innovation, and opportunity, SME has become the world's largest mining-related organization. He is the recipient of two prestigious awards including the Colorado Society of Association Executives' Professional of the Year award and the Mining and Metallurgical Society of America's Gold Medal award. He has a B.S. degree in industrial education from the University of Maryland, a M.S. degree in technology education from Eastern Illinois University and is a certified association executive by the American Society of Association

## **Non-Voting Trustees**



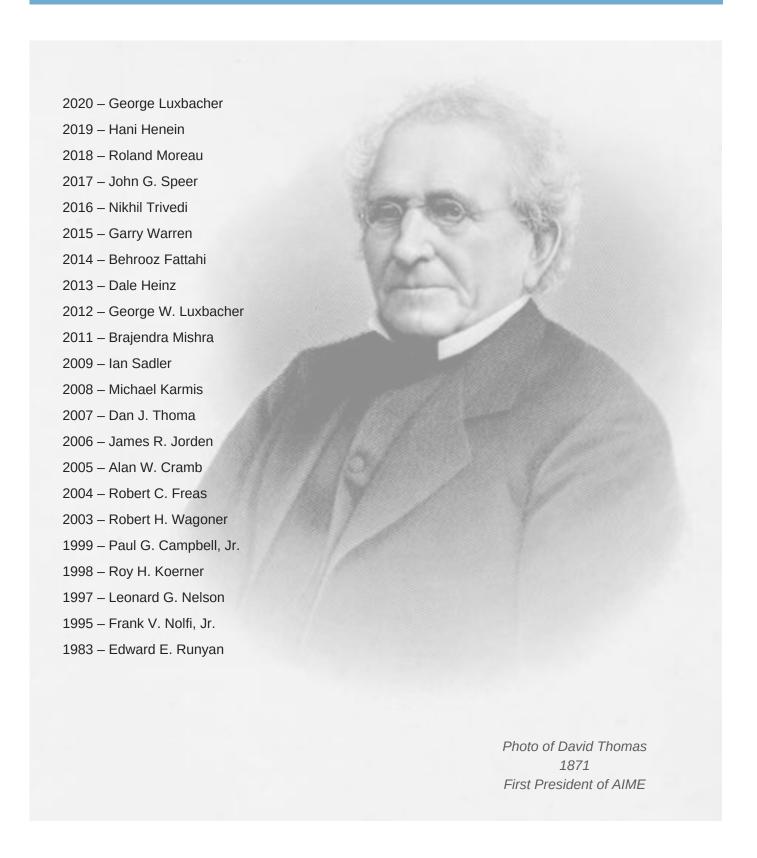
John Ehrig
Executive Director

We propose John Ehrig to serve as the Executive Director for AIME. John joined Inventures in 2004. He currently leads the Inventures association business development practice and serves as the executive director of the West Coast Lumber & Building Material Association (WCLBMA) and the CollabForum – a nonprofit hosting organization serving multiple types of collaborative organizations. He works closely with each board to define the short and long-term strategic direction and annual goals for the organization and lead the operational programs required to achieve success. Other client experience includes serving as the

executive director of the OSGi Alliance and the Open Authentication Technical Committee (OATC), launching and managing the Open Identity Exchange (OIX), transitioning the Open Identify Foundation (OIDF) and the PC Gaming Alliance (PCGA) from self-managed to AMC managed, managing the Enterprise Grid Alliance (EGA) and merging the EGA with the Global Grid Forum (GGF) to create the Open Grid Forum (OGF), and having a key role in forming and launching of the GENIVI Alliance. Prior to joining Inventures, John worked as Director of Product Management for Symmetricom, the worldwide leader in telecommunications network synchronization equipment, where he led the development of a \$30m/year product line and later headed the corporate marketing department. Previously he was Director of Marketing and Sales for Coastcom, a telecommunications equipment manufacturer.

John graduated with distinction from Pennsylvania State University with a B.S. degree in Business Administration. In his free time, John can be found in pursuit of his other passion, rock climbing the mountains of the western US

## **AIME Past Presidents - Active List**



## **Recipients of Awards**

### **Honorary Membership**

Richard Bodner AIST

For his significant technical contributions to the iron and steel industry and for his leadership and enduring support of AIST, AIME, and the former Iron & Steel Society. His commitment to developing the next generation of steelmakers, his support of junior faculty, and his organization of advanced symposia have fostered a sustainable future for steel.

Mary B. Korpi SME

In recognition of her service to SME and SMEF, and during her career in the Minerals Industry as a leader in metallurgical processing, as a role model and as an advocate for mining in society.

Olivier Houzé SPE

For his passionate contributions to the transformation of oil and gas production, particularly visible in the area of PTA/RTA, which he helped to elevate to a modern reservoir characterization and management tool. He has also been a prominent figure to promote petroleum engineering and SPE in many of his volunteer roles, including Board membership.

Roland Moreau SPE

For his passionate leadership of the multi-society safety event efforts for AIME and its Member Societies, as well as his dedicated Board service for SPE, AIME, and the UEF.

Elizabeth Holm TMS

For her outstanding service to TMS and distinguished scientific achievements in computational materials science and engineering.

### **Presidential Citation (formerly AIME Distinguished Service Award)**

Raja Ramani SME

In recognition of and appreciation for his dedicated service to the Institute as a Past Trustee and External Affairs Committee member and his decades of volunteer service to the Society of Mining, Metallurgy & Exploration, including his leadership of the Society as its 1995 President.

Nikhil Trivedi SME

In recognition of and deep appreciation for your leadership and guidance in celebrating AIME'S 145th and 150th anniversaries honoring our rich heritage, and for your exemplary volunteer service to the Society for Mining, Metallurgy and Exploration, the Institute, and its other Member Societies.

## **Rossiter W. Raymond Memorial Award**

Jon Wismann and Tony Nath

**AIST** 

The New Age of Scale House Management

#### **Charles F. Rand Memorial Gold Medal**

Neil B. Prenn SME

A mining innovator that has advanced hundreds of mining properties throughout his career.

#### **Robert Earll McConnell Award**

Mary M. Poulton

For Dr. Poulton's significant contributions in mineral and engineering education and innovations addressing real and challenging occupational training problems.

**SME** 

### **Environmental Stewardship Distinguished Service Award**

Kimberly F. Morrison

SME

In recognition of the many contributions, knowledge, and service to the ideals and purposes of the Society.

#### **Mineral Economics Award**

Thomas W. Camm

**SME** 

This award recognizes the outstanding contributions of Thomas Camm in the advancement of applied mining economics and his devotion to educating students in these disciplines.

## **Mineral Industry Education Award**

James L. Hendrix

TMS/SME

Awarded in recognition and appreciation of an illustrious and outstanding 50-year career as a dedicated educator and researcher to the minerals industry.

## **James Douglas Gold Medal**

Deepak Malhotra

**SME** 

For a lifetime of dedication to the industry.

## Frank F. Aplan Award

Hsin-Hsiung Huang

SME

For his labor of love to StabCal and his tireless devotion to the mining industry as well as students and research.

### **Percy Nicholls Award**

Michael Karmis

SME

In recognition of his wide and varied contributions to the improvement of geomechanics and mine systems, health and safety, carbon management and the sustainable development of energy and mineral resources

### **Hal Williams Hardinge Award**

Bowen Li

SME

For outstanding contributions to the advancement of applied materials sciences in the field of industrial minerals and ceramics.

### **Erskine Ramsay Medal**

Madan M. Singh

SME

For the tremendous contributions to the health, safety, and productivity performance of coal mines in the diverse areas of subsidence, ground control, ventilation, and tunneling.

#### **Robert H. Richards Award**

Kathleen A. Altman

SME

For her dedication to mineral processing in operations, process design, academia, metallurgical sample selection, test programs, and due diligence.

#### William Lawrence Saunders Gold Medal

Joseph Dick

**SME** 

For significant contributions to the mining industry including safe, productive operations and mentoring future industry leaders.

#### **Robert Peele Award**

Mingliang Tang SME

Mapping Surface Moisture Distribution of Heap Leach Pad Using Unmanned Aerial Vehicle, SME Annual Meeting, Feb. 2020, Phoenix, AZ.

#### **Howard N Eavenson Award**

Michael A. Trevits

For outstanding contributions to the advancement of applied materials sciences in the field of industrial minerals and ceramics.

## **Daniel C Jackling Award**

Keith G. Wallace, Jr. SME

For constant achievement in the advancement of practical mine ventilation and the elevation of health and safety in the mining community.

### **Champ Mathewson Award**

**TMS** 

Rajendra Bordia

Diletta Giuntini

Tyler Harrington

Alberto Molinari

Eugene Olevsky

Elsa Torresani Kenneth Vecchio Chaoyi Zhu

Anisotropy of Mass Transfer During Sintering of Powder Materials with Pore-Particle Structure Orientation.

## **Robert Lansing Hardy Award**

Ankit Srivastava TMS

For pioneering contributions to microstructural mechanics and exceptional promise of thought leadership in materials design for enhanced mechanical performance.

## **Benjamin F. Fairless Award**

Sunday O. Abraham AIST

For his significant contributions to electric arc furnace steelmaking, secondary metallurgy, and ladle refining technologies, most notably for his advancements of inclusion engineering and process modeling.

### J.E. Johnson Award

Lucas Melton AIST

### **Hunt-Kelly Outstanding Paper (AIST) – 2022**

\* Partially funded by the AIME Robert W. Hunt Fund

First Place: New EAF Dust Treatment Process for Co-Production of Metallic Zinc and Calcium-Ferrite

Shunsuke Koide Hitoshi Mizuno

Tetsuya Negasaka

Fumio Tanno Kazuyoshi Yamaguchi

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

Second Place: The Role of Transient Slags in Steelmaking

Eugene B. Pretorius

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

Third Place: Smart Ladle: Al-Based Tool for Optimizing Caster Temperature

Bin Chen Yury Krotov

Zhankun Luo

Nicholas J. Walla Chenn Q. Zhou

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

**Anthony F. Lucas Gold Medal** 

Kamy Sepehrnoori

SPE

**DeGolyer Gold Medal** 

Helen Chang

**SPE** 

## **Recipients of Scholarships**

### **Henry DeWitt Smith Scholarship - 2022**

#### **SPE**

Karem Al-Garadi, University of Wyoming

#### **SME**

Yamile Isabel Casasbuenas; Colorado School of Mines Isabel Penaloza Araujo; University of NV-Reno

#### **AIST**

Antonio Oliver-Reynoso, Instituto Tecnologico de Morelia

#### **TMS**

Ho Lun Chan, University of VA Jennifer Bustillos, Cornell University

### Benjamin F. Fairless Scholarship - 2022

#### **AIST**

Nicolas R. Manfred, Virginia Tech

### John S. Marshall Memorial Scholarships - 2022

Emily Ballard, University of Utah

Mohammad Anwar Karim, NM Institute of Mining and Technology

\* Funded by the AIME Howard N. Eavenson Fund

## SME Coal & Energy Scholarships - 2022

Alison Mertz
Baxter Jones
Jai Anand
Jared Morse
Kelley Anne Severinsen
Zubin Soomar

NM Institute of Mining and Technology-Dhanbad Virginia Polytechnic Institute and State University Indian Institute of Technology West Virginia University University of Utah University of Arizona

## The Lewis E. and Elizabeth W. Young Undergraduate Scholarships – 2022

\* Selected by SME-WAAIME Pennsylvania-West Section

#### West Virginia University - Mining Engineering

Mikey Alves, Jr.

Thommy Bagunye

Zoey Carper

Gabriella Kosakowski

Victor Valencia

#### Virginia Polytechnic Institute and State University - Mining Engineering

Brian Arnold

Michael Briggs

William Cook

Jacob Gehrt

August Greth

Owen Potts

Jackson Spires

Adam Tesch

#### University of Kentucky - Mining Engineering

Elijah Bryce Goad

#### University of Pittsburgh - Mining Engineering

Alyssa Barton

Darren Kobert

Luca Hignett Lewis

Sam Scarton

#### Pennsylvania State University

Chandima Chase

## **AIME Honorary Members**

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.

### **Active List with Year of Election**

					~
2022	Rick Bodnar	AIST	2019	Franklin M. Orr, Jr.	SPE
2022	Mary B, Korpi	SME	2019	Jeffrey B. Spath	SPE
2022	Olivier Houzé	SPE	2019	Ganesh C. Thakur	SPE
2022	Roland Moreau	SPE	2018	Christine Ehlig-Economides	SPE
2022	Elizabeth A. Holm	TMS	2018	Behrooz Fattahi	SPE
2021	John G. Speer	AIST	2018	Joyce Holtzclaw	SPE
2021	Terry G. Fedor II	AIST	2018	C. Susan Howes	SPE
2021	Ronald J. O'Malley	AIST	2018	Mridul Kumar	SPE
2021	Chenn Q. Zhou	AIST	2018	Stefan Z. Miska	SPE
2021	Barbara J. Arnold	SME	2018	Steven Hansen	AIST
2021	Timothy D. Arnold	SME	2018	Thomas J. Russo	AIST
2021	J. Steven Gardner	SME	2018	Subhash Mahajan	TMS
2021	Mary M. Poulton	SME	2018	Tresa Pollock	TMS
2021	Mohammed Y. Al Qahtani	SPE	2018	Drew A. Meyer	SME
2021	George V. Chilingar	SPE	2017	Dongxiao Zhang	SPE
2021	Thomas Arthur Gouldie	SPE	2017	Sidney S. Smith, Sr.	SPE
2021	Jitendra Kikani	SPE	2017	Dean S. Oliver	SPE
2021	George J. Moridis	SPE	2017	Alexander A. Neyin	SPE
2021	Robello Samuel	SPE	2017	Robert Gordon Moore	SPE
2021	Dan J. Thoma	TMS	2017	Anil Kumar	SPE
2021	David McDowell	TMS	2017	Akhil Datta-Gupta	SPE
2020	Glenn Pushis	AIST	2017	William P. Breedlove	AIST
2020	Tayfun Babadagli	SPE	2017	Andrew S. Harshaw	AIST
2020	A. Daniel Hill	SPE	2017	Richard P. Teets Jr.	AIST
2020	Ronald L. Hinn	SPE	2017	Hugh Miller	SME
2020	D. Nathan Meehan	SPE	2017	Art Schweizer	SME
2020	Hemanta K. Sarma	SPE	2017	Reza Abbascian	TMS
2020	Mukul M. Sharma	SPE	2017	Rohit Trivedi	TMS
2020	Jun Yao	SPE	2016	Daniel Moos	SPE
2019	Wendell Carter	AIST	2016	Sunil Kokal	SPE
2019	John O. Marsden	SME	2016	C. Shah Kabir	SPE
2019	Korukonda Linga Murty	TMS	2016	Ali Daneshy	SPE
2019	Maria A. Capello	SPE	2016	James R. Arnold	SME
2019	Anuj Gupta	SPE	2016	Siegfried Hecker	TMS

# AIME Honorary Members (continued)

2016	Dale Heinz	AIST	2010	Michael Karmis	SME
2015	Emmanuel Garland	SPE	2010	Raja V. Ramani	SME
2015	J.J. Azar	SPE	2010	Robert G.H. Lee	AIST
2015	Syed A. Ali	SPE	2009	Alan W. Cramb	AIST
2015	Hazim H. Abass	SPE	2009	James P. Brill	SPE
2015	Bernt S. Aadnoy	SPE	2009	Abbas Firoozabadi	SPE
2015	Randy Skagen	AIST	2009	Alain C. Gringartern	SPE
2015	William H. Wilkinson	SME	2008	Dato' Mohamad Idris Mansor	SPE
2015	Ta Li	SME	2008	David K. Matlock	AIST
2015	Thomas A. Blasingame	SPE	2008	Gary A. Pope	SPE
2014	Mary F. Wheeler	SPE	2008	Kenneth E. Arnold	SPE
2014	Albert C. Reynolds, Jr.	SPE	2008	Robert C. Freas	SME
2014	Thomas K. Perkins	SPE	2008	Robert H. Wagoner	TMS
2014	S.M. Farouq Ali	SPE	2007	David R. Keith	SPE
2014	Ali H. Dogru	SPE	2007	Don W. Green	SPE
2014	Adam T. Bourgoyne, Jr.	SPE	2007	Roland N. Horne	SPE
2014	Roderick I. L. Guthrie	AIST	2007	Roy H. Koerner	SPE
2014	William P. Barker	AIST	2006	Merton C. Flemings	TMS
2014	David Seidman	TMS	2006	Larry W. Lake	SPE
2013	Fred I. Stalkup	SPE	2006	Leonard G. Nelson	AIST
2013	Medhat M. Kamal	SPE	2005	Fernando Samaniego-Verduzco	SPE
2013	Kate Hadley Baker	SPE	2003	Peter D. Gaffney	SPE
2013	Turgay Ertekin	SPE	2003	Rajagopal S. Raghavan	SPE
2013	Ali R. Al-Jarwan	SPE	2002	Edgar C. Capen	SPE
2013	Indira Samarasekera	AIST	2002	John P. Hirth	TMS
2013	Bhakta B. Rath	TMS	2001	W. John Lee	SPE
2013	Nikhil C. Trivedi	SME	2001	Sadad I. Al-Husseini	SPE
2012	George W. Luxbacher	SME	2000	Dennis E. Gregg	SPE
2012	Iraj Ershaghi	SPE	1998	R. Lyn Arscott	SPE
2012	Andrew A. Young	SPE	1998	John K. Hammes	SME
2012	David E. Laughlin	TMS	1997	Necmettin Mungan	SPE
2012	Ian Sadler	AIST	1996	Khalid Aziz	SPE
2011	Yannis C. Yortsos	SPE	1995	James R. Jorden	SPE
2011	Egbert U. Imomoh	SPE	1995	Hossein Kazemi	SPE
2011	William M. Cobb	SPE	1993	Charles L. Bare	SPE
2011	Theodore F. Lyon	AIST	1992	Alexander McLean	AIST
2011	Barbara A. Filas	SME	1990	Michael Prats	SPE
2010	Eve Sprunt	SPE	1989	Douglas W. Fuerstenau	SME
2010	Fikri J. Kuchuk	SPE	1988	Edward E. Runyan	SPE
2010	Cesare Colamasi	SPE	1973	Harrison H. Schmitt	SME
2010	Ram G. Agarwal	SPE			

## **Legion of Honor - 50 Year Members**

Class of 1972

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.

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

Steven A. Bachenheimer

William P. Barker Michael F. Bigowsky Charles D. Blaze John T. Bowen Thomas A. Danjczek Hani Henein Steven G. Jansto Roy C. Martin

Charles E. Murphrey

Donald Naujock Takashi Taq Ohtani Kent C. Richards David P. Wirick George L. Yager

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

Richard Ackermann
Lawrence Allen
Michael Barber
Richard Bolen
John Buffa
Ken Byrne
Jeffrey Clevenger
Allen Cooper

Allen Cooper
Marion Davenport
John DeYoung
Russell Dittrich
W. Kent Eden

Rodney Elvish
Benjamin Guenther
Karl Gurr
James Gusek
Douglas Hambley
Warren Harrison
Timothy Hawkes
Heinz Hendriks
John Hill
James Hitt
Nils Johansen

George Johnson

Romeo Jurani
Thomas Kovach
Ronald Lewis
Richard LiConti
Leonel Lopez
Victor Miller
Lloyd Mullikin
David Nelson
Timothy O'Connor
Dave Osborne
Orus Patterson
Mark Pitt

Carl Schmuck
David Scriven
Michael Skopos
William Strickland
Donald Sutton
Michael Toelle
Tom Tveten
David Tyson
Mark Whitney
Victor Wicks
Joseph Giraudo

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

John Bradley
Robert Caligiuri
Dhanesh Chandra
Ravindra Chhatre
Oscar Christopherson
C. Eckert

George Eltringham Ivan Falleiros John Green Lindell Hurst M. Ashraf Imam Lionel Kimerling Martin Kopchak Sydney Leavitt
Thor Pedersen
Alton Romig
Jack Schuh
Jeffery Stember
Raymond Symens

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

### **Society of Petroleum Engineers (SPE)**

Knut Aarstad Kenneth Charles Adams Neal A. Alleyne Douglas Antonio Alvarado James Philip Amy III Ronald W. Atchley Stephen Atkinson Rafi M. Aziz Bijay S. Banthia James William Bauer William J. Begnaud Wayne A. Beninger Gerald W. Berk Robert E. Bethancourt Richard S. Bishop **David Bruce Blevins** James Edward Bobo Jan G. Bon Terry L. Brittenham Charles F. Brown Paul L. Bruce Larry O. Butner Robert S. Cade Warren David Cadwell Sidney W. Campbell Edgar C. Capen Gary S. Childress Bruce E. Conway Charles West Cottrell Brian Wm E. Darling Forrest L. Dietrich George S. Dixon Simon Domzalski William E. Dozier Robert John Duenckel Archie N. Duplantis Jr. Igor Effimoff Ramon Elias

Brian L. Evans

Mark P. Evans Marc Douglas Ernest Ken F. Fagan Harvey O. Fleisher Michael D. Fort Terry E. Fuller John D. Gillespie Thomas M. Gladney John Michael Glynn John Robert Gochnour Henk W. Goemans Thomas L. Gould Patrick J.F. Gratton Bruce T. Green David Louis Griffith Robert N. Griffith Terry S. Groh James C. Groombridge Surendra Pratap Gupta James D. Hacksma Brent W. Hale Michael Hannan Carl W. Harman Kenneth Earl Harris John D. Hartz Sigurd Heiberg Margaret J. Hinn David Lee Holcomb Warren J. Hudson David R. Humphrey Steven J. Hunter Neil F. Hurley Thomas B. Huzzey Gary T. Jenkins Ray A. Johnson Robert William Johnson John P. Jordan

Richard Parker Kendall

Jon Kleppe

Roger B. Knight Michael Dean Kotowski Fikri J. Kuchuk Trent B. Latshaw John F. Lauletta Tony Douglas Lawrence Richard H. Leeth Frank W. LeGros Jr. John B. Lennon Earl W. Levea Peter M. Lovie Joseph M. Martin **Christopher Mees** Michael J. Michnick Ray Miller III Larry B. Morse Christopher P. Moyes Frank Musgrave Suhail M. Nabi Thomas E. Nations Gary Lee Nydegger Roland V. Oberlin Delbert Gene Oliver Ove T. Olsen William Kenneth Ott Phillip D. Pattillo John D. Paulson Iain D. Percival O. Olumide Phillips A. B. Ramesh Terry Wayne Rathert Stephen W. Rector Dave E. Reese Gerald F. Reiger George Jack Robin John David Rodgers Russell Wayne Romoser J. Rene Rosales Juan A. Rosbaco

Craig Scott Royal Mark L. Rupert William M. Salathiel Randall M. Salge John W. Schaeffer George C. Schnerk Richard H. Schulze Robert E. Schwager John F. Sharp Mickey W. Shaw Steven Goff Shryock J. E. Siegfried Danny D. Simmons Svein M. Skjaeveland Raul Soria-Galvarro Art Stewart Michael W. Stewart Joseph D. Stewart Jr. Michael E. Strauss Masatoshi Sugioka Patrick W. Taylor Daniel H. Thompson James K. Thompson John L. Thorogood Gary L. Trotter Harty C. Van Jr. Ronald S. Vandersypen James Joseph Venditto John Bernard Vering Wayne G. Welch Michael J. Whims Harry M. Whitington Charles R. Williams Ii Larry James Williams Richard C. Wilson Shau Y. Wong Robert A. Woodroof Jr. William C. Yester Joe R. Zamora



**Financial Statements** 

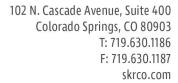
For the Year Ended December 31, 2022

And

**Independent Auditors' Report** 

### TABLE OF CONTENTS

	Page
INDEPENDENT AUDITORS' REPORT	1
FINANCIAL STATEMENTS AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2022	
Statement of Financial Position	3
Statement of Activities	4
Statement of Functional Expenses	5
Statement of Cash Flows	6
Notes to Financial Statements	7





#### **INDEPENDENT AUDITORS' REPORT**

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

#### **Opinion**

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, 2022, and the related statements of activities, functional expenses and cash flows for the year then ended, and the related notes to the financial statements.

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, 2022, 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.

#### **Basis for Opinion**

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### **Responsibilities of Management 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, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events considered in the aggregate, that raise substantial doubt about American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.'s ability to continue as a going concern within one year after the date that the financial statements are available to be issued.

#### **Auditors' Responsibility for the Audit of the Financial Statements**

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with generally accepted auditing standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with generally accepted auditing standards we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to
  fraud or error, and design and perform audit procedures responsive to those risks. Such procedures
  include examining, on a test basis, evidence regarding the amounts and disclosures in the financial
  statements.
- Obtain an understanding of internal control relevant to the audit 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 American Institute of Mining, Metallurgical, and Petroleum
  Engineers, Inc.'s internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.'s ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

#### **Report on Summarized Comparative Information**

We have previously audited American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc.'s 2021 financial statements, and we expressed an unmodified audit opinion on those audited financial statements in our report dated November 21, 2022. In our opinion, the summarized comparative information presented herein as of and for the year ended December 31, 2021, is consistent, in all material respects, with the audited financial statements from which it has been derived.

May 23, 2023

## STATEMENT OF FINANCIAL POSITION DECEMBER 31, 2022 (with comparative totals for 2021)

	2022	2021
ASSETS		
CURRENT ASSETS  Cash and cash equivalents Inventory  Prepaid expenses and other assets	\$ 305,470 12,911 <u>43,847</u>	\$ 17,660 7,891 <u>33,566</u>
Total current assets	362,228	59,117
BENEFICIAL INTEREST IN PERPETUAL TRUST	348,007	438,668
INVESTMENTS	10,523,291	12,948,925
TOTAL ASSETS	<u>\$ 11,233,526</u>	<u>\$ 13,446,710</u>
LIABILITIES AND NET ASSETS		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	\$ 53,979	\$ 41,898
NET ASSETS Without donor restrictions:	1 055 272	1 264 626
Designated for medal awards  Designated for specific use	1,055,272 1,885,500	1,264,626 2,049,031
Undesignated	3,682,689	4,612,848
Total net assets without donor restrictions	6,623,461	7,926,505
With donor restrictions	4,556,086	5,478,307
Total net assets	11,179,547	13,404,812
TOTAL LIABILITIES AND NET ASSETS	<u>\$ 11,233,526</u>	<u>\$ 13,446,710</u>

## STATEMENT OF ACTIVITIES FOR THE YEAR ENDED DECEMBER 31, 2022 (with comparative totals for 2021)

	Without Donor	2022 With Donor		2021
	Restrictions	Restrictions	Total	Total
REVENUE				
Investment income (loss), net	\$ (1,354,667)	\$ (766,418)	\$ (2,121,085)	\$ 1,526,580
Offshore technology conference	1,328,921		1,328,921	143,494
Gain from sale of oil and				
gas interest	400,000		400,000	134,910
Copyrights and other revenue	3,359		3,359	38,686
Change in beneficial interest				
in perpetual trust		(90,660)	(90,660)	36,020
Royalties	23,236		23,236	30,906
Contributions				17,107
Net assets released				
from restriction	65,143	(65,143)		
Total	465,992	(922,221)	(456,229)	1,927,703
EXPENSES				
Program services:				
Grants	1,131,762		1,131,762	1,135,293
Endowment spending	373,561		373,561	260,391
Strategic initiatives	136,540		136,540	149,800
Total program services	1,641,863	_	1,641,863	1,545,484
Supporting services:				
General and administrative	127,173		127,173	151,597
Total	1,769,036		1,769,036	1,697,081
CHANGE IN NET ASSETS	(1,303,044)	(922,221)	(2,225,265)	230,622
NET ASSETS, Beginning of year	7,926,505	5,478,307	13,404,812	13,174,190
NET ASSETS, End of year	\$ 6,623,46 <u>1</u>	\$ 4,556,08 <u>6</u>	\$ 11,179,54 <u>7</u>	\$ 13,404,812

See notes to financial statements.

## STATEMENT OF FUNCTIONAL EXPENSES FOR THE YEAR ENDED DECEMBER 31, 2022 (with comparative totals for 2021)

	2022											
	Program Se					ices				upporting Services		
	•		En	dowment		Strategic	То	tal Program	G	eneral and		2021
		Grants	9	pending	ı	nitiatives		Services	Adı	ministrative	Total	Total
Member society distributions	\$	1,131,762					\$	1,131,762			\$ 1,131,762	\$ 1,121,970
Medals, awards and scholarships			\$	267,656				267,656			267,656	229,782
Payroll and employee benefits				71,048	\$	25,969		97,017	\$	52,652	149,669	133,228
Meetings - external and other Audit, legal and				34,365		105,986		140,351			140,351	105,356
professional services				492				492		29,699	30,191	38,973
AIME Board meetings and travel						3,357		3,357		20,631	23,988	16,983
Supplies, postage, repairs												
and maintenance										20,750	20,750	46,563
Insurance										2,235	2,235	1,802
Promotion and advertising						1,228		1,228		342	1,570	
Other										864	 864	 2,424
TOTAL	\$	1,131,762	\$	373,561	\$	136,540	\$	1,641,863	\$	127,173	\$ 1,769,036	
PERCENTAGE		64%		21%		8%		93%		7%	100%	
TOTAL - 2021	\$	1,135,293	\$	260,391	\$	149,800	\$	1,545,484	\$	151,597		\$ 1,697,081
PERCENTAGE - 2021		67%		15%		9%		91%		9%		100%

See notes to financial statements.

#### **STATEMENT OF CASH FLOWS**

### FOR THE YEAR ENDED DECEMBER 31, 2022 (with comparative totals for 2021)

	2022		2021
OPERATING ACTIVITIES			
Change in net assets	\$ (2,225,265)	\$	230,622
Adjustments to reconcile change in net assets to net			
cash used in operating activities:			
Depreciation			469
Realized and unrealized losses (gains) on investments	2,321,191		(1,345,129)
Gain from sale of oil and gas interest	(400,000)		(134,910)
Change in beneficial interest in perpetual trust	90,660		(36,020)
Changes in operating assets and liabilities:			
Inventory	(5,020)		926
Prepaid expenses and other current assets	(10,281)		14,554
Accounts payable and accrued expenses	 12,081		(24,058)
Net cash used in operating activities	 (216,634)	_	(1,293,546)
INVESTING ACTIVITIES			
Proceeds from sales of investments	2,152,485		2,022,185
Purchases of investments	(2,048,041)		(963,656)
Proceed from sale of oil and gas interest	 400,000		134,910
Net cash provided by investing activities	 504,444		1,193,439
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	287,810		(100,107)
CASH AND CASH EQUIVALENTS, Beginning of year	 17,660		117,767
CASH AND CASH EQUIVALENTS, End of year	\$ 305,470	\$	17,660

#### **NOTES TO FINANCIAL STATEMENTS**

#### 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations — Organized in 1871 and incorporated in New York in 1905, 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 under Section 509(a)(3). AIME is a supporting organization for the member societies under Section 509(a)(3)(Type I). In 2017, with AIME operations having been in Colorado since 2003, AIME established a shell non-profit corporation in Colorado with the intent to merge AIME New York into it. That process was approved by the New York Attorney General in 2022, and as of February 9, 2022, AIME Colorado is the sole operating entity

AIME's mission is to support its member societies. AIME fulfills this mission by:

- Exercising fiscal responsibility
- Distributing funds
- Facilitating interaction with the relevant scientific and engineering communities
- Honoring the legacy and traditions of AIME

AIME's four member societies are the Society for Mining, Metallurgy & 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 two classes of net assets: net assets without donor restrictions, which represents the expendable resources that are available for operations at management's discretion; and net assets with donor restriction, which represents resources restricted by donors as to purpose or by the passage of time and 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, 2021, from which the summarized information was derived.

**Cash and Cash Equivalents** — For purposes of the statement of cash flows, 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, 2022 and 2021, there were no accounts and grants receivable recorded.

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

**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. AIME has property and equipment at a cost of \$3,684, which is fully depreciated as of December 31, 2022 and 2021. Depreciation of furniture and equipment is being provided for by the straight-line method over the estimated useful lives of three to seven years.

**Revenue Recognition** — Contributions received are recorded as net assets without donor restrictions or net assets with donor restrictions depending on the existence or nature of any donor restrictions. When a donor restriction is met, net assets with donor restrictions are reclassified to net assets without donor restrictions 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.

**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 balances and amounts have been reclassified to conform with current year presentation.

**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. LIQUIDITY AND AVAILABILITY

The following table reflects AIME's financial assets as of December 31, 2022 and 2021, reduced by amounts that are not available to meet general expenditures within one year of the statement of financial position date because of contractual restrictions or internal board designations. Amounts not available to meet general expenditures within one year include net assets with donor restrictions and board designated funds that are intended to fund special board initiatives not considered in the annual operating budget. In the event the need arises to utilize the board-designated funds for liquidity purposes, the reserves could be drawn upon through board resolution. Amounts not available to meet general expenditures within one year also include net assets with donor restrictions.

	2022	2021
Cash and cash equivalents Investments	\$ 305,470 10,523,291	\$ 17,660 12,948,925
Total financial assets	 10,828,761	 12,966,585
Less amounts unavailable for general expenditures within one year, due to:		
Restricted by donors with purpose restrictions	3,525,273	4,356,833
Restricted by donors in perpetuity	 1,030,813	 1,121,474
Total amounts unavailable for general expenditures within one year	 <u>4,556,086</u>	 5,478,307
Less amounts unavailable to management without Board's approval:		
Board designated for specific use	1,885,500	2,049,031
Board designated for medal awards	 1,055,272	1,264,626
Total amounts unavailable to management without Board's approval	 2,940,772	 3,313,657
Total financial assets available to management to meet cash needs for general expenditures within one year	\$ 3,331,903	\$ <u>4,174,621</u>

As part of AIME's liquidity management, it has a policy to structure its financial assets to be available as its general expenditures, liabilities, and other obligations come due. AIME's policy to manage an emergency cash flow need is to evaluate actual monthly expenditures and compare with amounts forecasted to determine if the liquidation of investments, release of unrestricted endowments, or other measure should be taken. Per AIME bylaws, each AIME member society is also responsible for its share of the expenses to support AIME's programs. AIME manages its cash flow for a one-year cycle from the balance sheet date.

#### 3. FUNCTIONAL EXPENSES ALLOCATION METHODS

The financial statements report certain categories of expenses that are attributable to one or more programs or supporting services of AIME. Therefore, expenses require allocation on a reasonable basis that is consistently applied. The expenses that are allocated include staff time allocated as 65% program services and 35% general and administrative. Other expenses are allocated based on estimates of time and effort required.

#### 4. CONCENTRATIONS 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 stocks, mutual funds, 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 6). Actual fair value of the investments upon liquidation could vary significantly from the current estimated fair value.

#### 5. 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, 2022 and 2021, the beneficial interest in the Trust was \$348,007 and \$438,668, respectively. AIME received \$19,560 and \$17,107 in distributions from the Trust during the years ended December 31, 2022 and 2021, respectively.

#### 6. 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, Mutual Funds, and Exchange Traded 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 dentical Asset (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)		Total
2022: Common stocks Corporate bonds Exchange traded funds Cash and cash equivalents	\$ 3,517,033 2,937,610 597,288	\$ 3,107,069		\$	3,517,033 3,107,069 2,937,610 597,288
Total	7,051,931	3,107,069	\$ -		10,159,000
Beneficial interest in trust	 	 348,007		_	348,007
Total in fair value hierarchy	\$ 7,051,931	\$ 3,455,076	<u>\$</u>		10,507,007
Investments measured at net asset value  Total				\$	364,291 10,871,298
2021: Common stocks Corporate bonds Exchange traded funds Cash and cash equivalents Mutual funds	\$ 6,509,202 2,196,079 821,325 57,105	\$ 2,888,671		\$	6,509,202 2,888,671 2,196,079 821,325 57,105
Total	9,583,711	2,888,671	\$ -		12,472,382
Beneficial interest in trust	 	 438,668		_	438,668
Total in fair value hierarchy	\$ 9,583,711	\$ 3,327,339	<u>\$</u>		12,911,050
Investments measured at net asset value				_	476,543
Total				\$	13,387,593

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 Measured at 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, 2022:

Investments		Fair Value	funded mitments	Redemption Frequency	Redemption Period	Term		
Private Equity Offshore Fund VI Limited	\$	106,409	\$ 38,029	*	N/A	15 years with three 1-year options beginning in 2007		
Private Equity Offshore Fund VII Limited		94,707	73,708	*	N/A	15 years with three 1-year options beginning in 2008		
Private Equity Offshore Fund VIII Limited		55,051	15,168	*	N/A	15 years with three 1-year options beginning in 2011		
Private Equity Offshore Fund IX Limited	_	108,124	20,123	*	N/A	15 years with three 1-year options beginning in 2012		
Total	\$	364,291						

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

Hirtle Callaghan Private Equity Offshore Fund VI, VII, and VIII Limited (the Funds): The Funds are exempt companies established under the laws of the Cayman Islands. The objective of the Funds is to realize long-term total returns by investing in a diversified group of pooled investment vehicles, which will, in turn, invest in different private equity-related disciplines, that include, but are not limited to, venture capital, growth capital, buyouts, debt, real estate, mining, energy and infrastructure. In 2020, the Private Equity Offshore Fund V Limited was fully liquidated and AIME received a final distribution of their proportionate share of the Fund.

Hirtle Callaghan Private Equity Offshore Fund IX Limited (the Fund): The Fund is an exempt company established under the laws of the Cayman Islands. The objective of the Fund is to realize long-term total returns by investing in a broad range of private equity funds, which will, in turn, invest in different private equity-related disciplines, that include, but are not limited to, venture capital, growth capital, buyouts, debt, real estate, power, energy and infrastructure.

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

	2022	2021
Net realized and unrealized gains (losses) Dividends and interest	\$ (2,321,191) <u>258,705</u>	\$ 1,345,129 253,335
Total Investment advisory fees	(2,062,486) <u>(58,599</u> )	1,598,464 (71,884)
Total investment income (loss), net	\$ (2,121,08 <u>5</u> )	\$ 1,526,580

#### 7. TRANSACTIONS WITH AFFILIATES

During the year ended December 31, 2022, AIME remitted \$1,490,714 to the member societies. Of this amount, \$1,042,400 were funds received from the Offshore Technology Conference and passed on to the member societies, \$177,693 were reimbursements to SME for payroll and employee benefits expenses, \$13,284 were to pay audit and taxes on behalf of the member societies, and the remaining \$257,337 was for awards and scholarships.

During the year ended December 31, 2021, AIME remitted \$382,864 to the member societies. Of this amount, \$121,970 were funds received from the Offshore Technology Conference and passed on to the member societies, \$75,720 were reimbursements to SME for payroll and employee benefits expenses, and the remaining \$185,174 was for awards and scholarships.

AIME owed member societies \$27,296 and \$17,274 as of December 31, 2022 and 2021, respectively.

#### 8. BOARD DESIGNATED NET ASSETS

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

		2022	2021
Specific use	\$	1,885,500	\$ 2,049,031
Medal awards		1,055,272	 1,264,626
Total	<u>\$</u>	2,940,772	\$ 3,313,657

#### 9. NET ASSETS WITH DONOR RESTRICTIONS

Net assets with donor restrictions have been restricted by donors for special projects to be spent as follows at December 31:

	2022		2021
Restricted as to purpose:			
Medals and awards	\$ 1,071,292	\$	1,325,766
Specific use	1,549,299		1,889,430
Scholarships	 904,682		1,141,637
Total	 3,525,273	_	4,356,833

	2022	2021
Perpetual endowments subject to AIME's spending policy and appropriation	682,806	682,806
Beneficial interest in irrevocable trusts not subject to AIME's spending policy and appropriation	348,007	438,668
Total	1,030,813	1,121,474
Total net assets with donor restrictions	\$ 4,556,086	\$ 5,478,307

#### 10. ENDOWMENT

AIME's endowment consists of 21 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 net assets with donor restrictions (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. 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 AIME; and
- 7. The investment policies of AIME

Changes in endowment net assets for the years ended December 31 are as follows:

	Without Donor Restrictions		With Donor Restrictions		Total	
2022						
Endowment net assets, January 1, 2022	\$	232,437	\$	5,039,640	\$ 5,272,077	
Investment return, net		(38,044)		(892,258)	(930,302)	
Appropriations for expenditures		(329)		(21,547)	 (21,876)	
Endowments net assets, December 31, 2022	\$	194,064	\$	4,125,835	\$ 4,319,899	

	Without Donor Restrictions		With Donor Restrictions		Total	
2021						
Endowment net assets, January 1, 2021	\$	209,889	\$	3,844,221	\$	4,054,110
Investment return, net		24,977		325,471		350,448
Appropriations for expenditures		(2,429)		(19,881)		(22,310)
Transfers in				889,829		889,829
Endowments net assets, December 31, 2021	\$	232,437	\$	5,039,640	\$	5,272,077

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 net assets without donor restrictions. There were no such deficiencies as of December 31, 2022 and 2021.

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 or depreciation (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.



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

Address: 5000 Executive Parkway, Suite 302

San Ramon, CA 94583 Phone: 1-303-948-4255 Internet: www.aimehq.org E-mail: aime@aimehq.org

## **Member Societies**







**Society of Petroleum Engineers** 



### **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 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

## **Society of Petroleum Engineers**

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

Internet: www.spe.org

E-mail: postmaster@spe.org

## The Minerals, Metals & Materials Society

5700 Corporate Drive Suite 750, Pittsburgh, PA 15237

Phone: 724-776-9000, Fax: 724-776-3770

Internet: www.tms.org

E-mail: tmsgeneral@tms.org