

AIN REPORT 1973

THE YEAR IN REVIEW

During 1973 major attention of AIME officers and staffs continued to be devoted to internal activities and organization. At the beginning of the year implementation of the plan to decentralize the Business Office previously operated by the AIME Headquarters was started, and business services, such as accounting, membership records, data processing and Section-Student Chapter administration, were transferred to the three Constituent Societies. The AIME Headquarters was established at the same time as one of the four operating units of the Institute. Since the decentralization involved changes in procedures, making the plan work has required constant effort. All four units are now operating effectively on a decentralized basis.

Under the decentralized plan the AIME Corporate Headquarters is responsible for external functions involving AIME as a single organization and the coordination of AIME programs internally. The Constient Societies are responsible for direct service to members, the conduct of Society meetings, and the issuance of publications. The Societies are also charged with administration of all AIME local Sections and Student Chapters.

The AIME Council of Section Delegates has been in an interim status in the past year. Decentralized administration of local Sections created a need for different types of Section officer meetings. In place of the six geographical regional meetings of the CSD held in prior years, four special meetings were held in 1973. AIME President James B. Austin and Executive Director Joe B. Alford made presentations at these meetings on AIME organization and operation. The meetings were successful, and further study is now being conducted on the best means of maintaining communications between the AIME Headquarters and Section officers.

Improved communications with AIME members from the AIME Headquarters has also been a goal during 1973. Articles on the merger study between AIME and the American Society for Metals, and on the question of unity in the engineering profession have been published in AIME journals. Plans for publication of an AIME Headquarters Report were completed. The first issue of this Report, an in-depth presentation on AIME and Constituent Society headquarters offices in w York, Dallas and Salt Lake City, has been pubhed. The Report will be sent directly to all officers of the Institute, Constituent Societies, Divisions, Councils and local Sections on a quarterly basis in the future.

In October 1973 the AIME Board of Directors took an important step in authorizing the President of the Institute to speak on national affairs in matters of a technical and professional nature within the purview of AIME. The President may call on various groups in the Institute for counsel or expertise in speaking for AIME, and he will report significant statements made to the AIME Board. In December the occasion arose for the engineering societies to express their position on a new Energy R&D Administration in the federal government. President Austin joined with six other society presidents in supporting the principle of an expanded R&D effort in the energy field. This change in procedure will enable AIME to express a position on important national issues more rapidly in the future, and to join with other technical societies in being more active in public affairs.

Important developments occurred during the year in AIME Constituent Societies. The Society of Mining Engineers of AIME, after extended study, decided to move its headquarters offices from Manhattan to Salt Lake City. The move was started in December, to be completed in the spring of 1974. The offices will be housed in a building in Utah Research Park, a new development of the State of Utah near the campus of the University of Utah.

The Metallurgical Society of AIME conducted internal studies from which came a proposal to expand the Iron and Steel Division to an Iron and Steel Society of AIME, to be the fourth Constituent Society. The proposal has been presented to the AIME Board of Directors. An in-depth study of the proposal and its possible impact on the rest of the Institute will be made during 1974.

The Society of Petroleum Engineers of AIME started an extensive study of its internal organization and operations to further implement the decentralization and its service to members. The Society headquarters staff in Dallas continued the management of the stillexpanding Offshore Technology Conference.

The increasing recognition of the importance of energy and mineral resources to the nation brought a sharper focus on AIME and its role in further development of the technology for these resources. The Institute is responding and will continue to respond to the challenge of this responsibility in providing a continuing forum for the dissemination of rapidly expanding knowledge in its fields of activities. AIME members, the engineering profession, and the nation will continue to benefit from the ongoing programs of the Institute.

AIME MEMBERSHIP has increased by 332 to reach a new high for the Institute of 49,726 corporate and student members (45,154 corporate, 4,572 student). During the past decade AIME membership has increased by an average of more than 1,000 men and women annually. Society membership for 1973 is broken down as follows: SME-AIME: 18,329; TMS-AIME: 11,107; SPE-AIME: 20,290. Decentralized operations, with the Constituent Societies responsible for membership records,

membership services, and the administration of local sections and student chapters, has been in effect now for one full year. Though some difficulties have arisen, the Societies have pooled their respective resources and knowledge to surmount problems as they have curred. In future years AIME members can expect to continue to receive excellent and expanding member services provided by the Constituent Societies of AIME.

AIME PUBLICATIONS provide an invaluable service, enabling members of the three AIME Societies to exchange current information, techniques and ideas. In 1973, the Society of Mining Engineers of AIME published three new books: 1973 International Hydrometallurgy Symposium; Elements of Practical Coal Mining; and the two-volume SME Mining Engineering Handbook, featuring the work of more than 260 authors. During the year, Mining Engineering included a Fall Special Issue highlighting Iron Ore in the United States and Materials Handling, the Annual Review of the Minerals Industry Issue, and the Membership Directory of the Society of Mining Engineers of AIME. Four books are in progress, with Solution Mining Symposium 1974 sold at the 103rd AIME Annual Meeting in Dallas in February, 1974.

The Metallurgical Society of AIME published ten new books in 1973: 30th Annual Electric Furnace Conference Proceedings; 32nd Annual Ironmaking Conference Proceedings; 56th Annual National Open Hearth and Basic Oxygen Steel Conference Proceedings; 15th Mechanical Working and Steel Processing Conference Proceedings; Light Metals 1973; Processing and Properties of Low Carbon Steel; High Temperature Gas-Metal Reactions in Mixed Environments; Failure Modes in Composites; Continuous Casting; and Nickel Segregation. Journals of Metals published 912 pages for the year and Metallurgical Transactions totaled 2,856 pages.

Sales continued strong for the Society of Petroleum Engineers of AIME monograph series and preprint series in 1973, with five monographs in various stages of preparation for future publication. Journal of Petroleum Technology printed 793 pages in 1973, and Society of Petroleum Engineers Journal contained 329 pages.

AIME MEETINGS constitute an effective forum for the dissemination and discussion of ideas, information and techniques. The AIME 102nd Annual Meeting was held in February of 1973 in Chicago, Illinois. More than 2500 registrants attended the Meeting, which featured some 500 technical papers offered in 91 sessions. The AIME Annual Meeting continues to be one of the major forums of the entire minerals field.

The Fifth Annual Offshore Technology Conference was held in Houston, Texas during the first week of May, 1973. Over 23,000 registrants attended the OTC; the continuing success of this conference is reflected by the more than 19,000 increase in attendance since the first OTC in 1969. The OTC is recognized internationally as the leading forum in offshore technology, and AIME is proud to be a major sponsor. AIME, through the Society of Petroleum Engineers of AIME, also manages the entire Offshore Technology Conference each year.

AIME functions as a joint sponsor of the Rapid Excavation and Tunneling Conference. The success of the first RETC in 1972 led to the scheduling of the Second RETC, to be held in San Francisco, California, June 24-

27, 1974. The first RETC was attended by representatives of twenty-three foreign nations, and it is expected the 1974 RETC will continue to grow in its role as the major international forum for rapid excavation and tunneling technology. AIME, through the Society of Mining Engineers of AIME, also manages the entire Rapid Excavation and Tunneling Conference each year.

The Constituent Societies of AIME were active in holding meetings throughout the year. The Society of Mining Engineers of AIME conducted its annual Fall meeting, assisted in sponsoring the AIME Annual Meeting, and the OTC, for a total attendance of 1,905 participants for 1973. The Metallurgical Society of AIME assisted in the AIME Annual Meeting and the OTC. In addition, it held its Annual Spring and Fall Meetings, as well as five other major conferences. Total attendance for the year was 5,657 participants. The Society of Petroleum Engineers of AIME, along with managing the Fifth Annual Offshore Technology Conference, held its annual Fall Meeting in Las Vegas, Nevada, which was attended by 4,658 participants. The Society a conducted nine regional meetings during 1973, with a combined attendance of 2,411 participants.

AIME REVENUE AND EXPENSE STATEMENT

FOR FISCAL YEAR ENDED NOVEMBER 30, 1973

Under the current decentralized organization of AIME, the four operating units of the Institute are the Headquarters and the three Constituent Societies. Operating budgets are established by the AIME

Executive Committee and the three Society Boards, then approved by the AIME Board.

Revenues for the conduct of 1973 activities in each unit were derived from the sources shown in the statement below. Membership dues provided 35 percent of total revenue. The Headquarters and All-Institute revenue came from an allocation of membership dues and the major part of current income from AIME endowment funds. Constituent Society revenues were also from membership dues, along with all income from their current publications, meetings and investments.

Expenses were made in the four major categories shown. Publications received 37 percent of total expense in 1973. Constituent Society direct expenses are divided into administration, membership services and development, and meetings. AIME Headquarters expenses include administration and All-Institute expenses such as audit, legal, and AIME support of the federations such as Engineers Joint

An important aspect to note is that AIME total expense per member in 1973 was \$57.80, considerably more than individual member dues. All units operated in a surplus position in 1973 except The Metallurgical Society of AIME. The deficit in this Society was caused by the rebuilding program for the Journal of Metals, and this was offset by a grant from the AIME Henry Krumb Endowment Fund. In summary 1973 was a good year financially for the Institute.

	AIME Head- quarters and All- Institute	Society of Mining Engineers of AIME	The Metal- lurgical Society of AIME	Society of Petroleum Engineers of AIME	AIME Total
REVENUE					
Member Dues & Fees	\$206,398	\$374,042	\$208,726	\$ 266,811	\$1,055,977
Advertising and Publication Sales, net		330,928	250,616	456,343	1,037,887
Appropriations from Endowment Funds	120,133	9,736	45,264		175,133
Meeting, Investments, Other TOTAL REVENUE		175,668 890,374	28,977 533,583	536,733 1,259,887	776,038 3,045,035
EXPENSE					
Publications		460,198	236,155	367,507	1,063,860
Section & Student Chapter Support		20,501	14,208	26,042	60,751
Constituent Society Expenses (Administrative, Meeting, Other)		398,923	332,181	687,928	1,419,032
AIME Headquarters & All-Institute Expense					330,739
TOTAL EXPENSE	330,739	879,622	582,544	1,081,477	2,874,382
EXCESS OF REVENUE OVER (EXPENSE)	\$ 30,452	\$ 10,752	(\$ 48,961)	<u>\$ 178,410</u>	<u>\$ 170,653</u>
TOTAL EXPENSE PER MEMBER	\$ 6.65*	\$ 47.99**	\$ 52.45**	\$ 53.30**	\$ 57.80*

As of January 1, 1974 corporate and student membership totals were as follows:

	Student	Corporate	\underline{Total}
Society of Mining Engineers of AIME	1,442	16,887	18,329
The Metallurgical Society of AIME	2,113	8,994	11,107
Society of Petroleum Engineers of AIME	1,017 4,572	$\frac{19,273}{45,154}$ -	20,290 49,726

Based on total AIME membership

Based on Society membership only

AIME AWARD RECIPIENTS FOR 1973

HONORARY MEMBERSHIP 1972 Francis Cameron Michel Thomas Halbouty George Hutchinson Love Albert John Phillips Harrison H. Schmitt John Elliott Sherborne Carl Wagner

HONORARY MEMBERSHIP 1973 James Boyd Cyril Stanley Smith Paul Dwight Torrey

JAMES DOUGLAS GOLD MEDAL Herbert H. Kellogg

ERSKINE RAMSAY MEDAL Dennis L. McElrov

ROBERT H. RICHARDS AWARD John D. Vincent

BENJAMIN F. FAIRLESS AWARD John H. Chesters

HAL WILLIAMS HARDINGE AWARD Kenneth K. Landes

ROBERT EARLL McCONNELL AWARD Maurice Ewing

ROSSITER W. RAYMOND MEMORIAL AWARD A. Richard Sinclair

MINERAL INDUSTRY EDUCATION AWARD Robert L. Whiting

ROCK MECHANICS AWARD William F. Brace MINERAL ECONOMICS AWARD W. Keith Buck

ENVIRONMENTAL CONSERVATION DISTINGUISHED SERVICE AWARD John R. Mansell

DANIEL C. JACKING AWARD AND LECTURER Lyman H. Hart

HOWARD N. EAVENSON AWARD Charles T. Holland

ROBERT PEELE AWARD A. D. Pernichele M. P. Kahle

ROBERT W. HUNT SILVER MEDAL T. Raymond Meadowcroft R. J. Milbourne

J. E. JOHNSON JR. AWARD Donald W. R. George

CHAMPION MATHEWSON GOLD MEDAL Julian Szekely

ROBERT LANSING HARDY GOLD MEDAL J. W. Morris, Jr.

EXTRACTIVE METALLURGY
DIVISION TECHNOLOGY AWARD
G. D. Hallett
G. C. McKerrow
P. Tarassoff
Nickolas Themelis

INSTITUTE OF METALS DIVISION LECTURER R. F. Decker FELLOWS OF THE METALLURGICAL SOCIETY OF AIME John H. Frye, Jr. William O. Philbrook Raymond L. Smith

EXTRACTIVE METALLURGY DIVISION SCIENCE AWARD Julian Szekely J. W. Evans

HOWE MEMORIAL LECTURER F. J. McMulkin

EXTRACTIVE METALLURGY DIVISION LECTURER William A. Krivsky

JOHN CHIPMAN AWARD Donald C. Hilty John W. Farrell Paul J. Bilek

SOCIETY OF PETROLEUM ENGINEERS OF AIME DISTINGUISHED SERVICE AWARD R. C. Earlougher A. J. Horn

CEDRIC K. FERGUSON MEDAL M. R. Todd

JOHN FRANKLIN CARLL AWARD Paul Dwight Torrey

DeGOLYER DISTINGUISHED SERVICE MEDAL Thomas C. Frick

LESTER C. UREN AWARD Henry J. Ramey, Jr.

OFFICERS AND DIRECTORS FOR 1973

AIME BOARD OF DIRECTORS

PRESIDENT
James B. Austin, Pittsburgh, Pa.
PRESIDENT-ELECT
Wayne E. Glenn, Houston, Texas
PAST PRESIDENT
Dennis L. McElroy, Pittsburgh, Pa.
VICE PRESIDENT-FINANCE
Robert S. Ryan, New York, N. Y.
VICE PRESIDENTS
James C. Fulton, Brackenridge, Pa.

Robert M. Grogan, Wilmington, Del. A. J. Horn, Atherton, Calif. M. Scott Kraemer, Chicago, Illinois Donald O. Rausch, Eureka, Utah David Swan, New York, N. Y.

DIRECTORS
James E. Bilderback, St. Louis, Mo.
Donald A. Dahlstrom,
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Herman A. Engel, Jr., Houston, Texas

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Julius J. Harwood, Dearborn, Mich.
Robert E. Lund, Monaca, Pa.
Robert H. Merrill, Denver, Colorado
E. A. Rassinier, Houston, Texas
Donald G. Russell, Houston, Texas
Gerald E. Sherrod, New York, N.Y.
Robert S. Shoemaker,
San Francisco, Calif.

EXECUTIVE DIRECTOR
Joe B. Alford, New York, N. Y.

Society of Mining Engineers of AIME

PRESIDENT
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PRESIDENT-ELECT
Donald A. Dahlstrom,
Salt Lake City, Utah
PAST PRESIDENT
Robert M. Grogan, Wilmington, Del.
TREASURER
Donald O. Rausch, Eureka, Utah
EXECUTIVE SECRETARY
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The Metallurgical Society of AIME

PRESIDENT
Julius J. Harwood, Dearborn, Mich.
PAST PRESIDENT
David Swan, New York, N.Y.
VICE PRESIDENT AND
PRESIDENT-ELECT
James C. Fulton, Brackenridge, Pa.
TREASURER
Carleton C. Long, Monaca, Pa.
EXECUTIVE SECRETARY
Claude L. Crowley, New York, N.Y.
Alexander R. Scott, New York, N.Y.

Society of Petroleum Engineers of AIME

PRESIDENT
Gerald E. Sherrod, New York, N.Y.
PRESIDENT-ELECT
Donald G. Russell, Houston, Texas
PAST PRESIDENT
M. Scott Kraemer, Chicago, Illinois
TREASURER
Marvin L. Katz, Dallas, Texas
EXECUTIVE DIRECTOR
David L. Riley, Dallas, Texas

The American Institute of Mining, Metallurgical, and Petroleum Engineers 345 East 47th Street New York, New York 10017

1973 OFFICIAL ANNUAL REVIEW



AIME

and its

THREE CONSTITUENT SOCIETIES







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OFFICIAL AIME ANNUAL REVIEW

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REPORT OF THE EXECUTIVE DIRECTOR, AIME FOR 1973

The past year was not one of unusual or major events within the Institute, but rather was one of steady attention to internal affairs and ongoing activities of the Institute and its constituent units. The plan for decentralization of the AIME Business Office was put into effect at the beginning of the Fiscal Year, and the business services, such as accounting, membership records, data processing and Section administration were transferred to the three Constituent Societies. The AIME Corporate Headquarters was established at the same time as one of the four operating units of the Institute. During 1973 major attention of all the staff groups in the Institute has been devoted to implementing the plan and making it work. Some unexpected problems occurred in the areas of accounting and data processing, but they were not unduly serious and have largely been solved, and all four units are now operating effectively on a decentralized basis.

As reflected in this review, meetings throughout the Institute during the year were generally well attended. Management of the AIME Annual Meeting, which had been handled through The Metallurgical Society of AIME in the last two years, was again assumed by the AIME Corporate Headquarters staff. The continuing success of the Offshore Technology Conference with 23,846 persons attending in 1973 was gratifying.

Membership growth in the Society of Petroleum Engineers of AIME continued at a very good pace. The other two Constituent Societies did not experience significant losses of members because of the dues increase. Total AIME membership at the end of the year was 49,726, compared to 49,394 a year ago.

One of the gratifying activities of the year was the continuing success of a program to rebuild Journal of Metals, the monthly periodical of TMS-AIME. In 1970 this periodical had declined to a low point in member acceptance, editorial and advertising pages published, and revenues derived from advertising and subscriptions. The TMS-AIME Board developed a three-year plan for rebuilding of the Journal. The AIME Board approved two-thirds of the financial support for the program to come from the Henry Krumb Endowment Fund, with one-third to come from the Society. The program was started in the spring of 1971. In 1973 member acceptance was at a very high point, total magazine revenues were \$184,000, compared to \$138,000 projected. Magazine expenses were \$204,000, against \$191,000 projected in the three-year plan. Thus, the plan has been quite successful, and the prospects are that the magazine may break even financially in 1974.

President James B. Austin devoted a great deal of his time and efforts to the Institute during the year. He attended numerous meetings, and his efforts were especially helpful on internal affairs and administration of the Institute. AIME is indebted to Dr. Austin and Mrs. Austin for their contributions.

I am deeply grateful to all of the officers and staff of the Institute and the three Constituent Societies for their dedicated efforts during the year, for the patience manifested in the activities in which we have been engaged, and for their continuing interest and support of the Institute in so many ways.

Respectfully submitted,

Joe B. Alford, Executive Director

AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS

RECORD OF HONORS AND AWARDS PRESENTED BY AIME IN 1973

The following Honors and Awards were presented by AIME in 1973, in addition to those presented by our Constituent Societies and described elsewhere in this Annual Review:

HONORARY MEMBERSHIP was conferred upon

Francis Cameron, "For his leadership in the development of important mining operations at home and abroad and especially for his part in the development of the New Lead Belt in Missouri."

Michel Thomas Halbouty, "In recognition of his outstanding technical ability in petroleum geology and engineering, for literary contributions, for his dedicated work in industry and government, and for devoted service to the Institute."

George Hutchinson Love, "For his outstanding accomplishments and innovations in the fields of Safety, Operations, Marketing, Research, and Employee Relations for the Coal Industry, and for his leadership in all industry, particularly the Mining Industry."

Albert John Phillips, "For his many contributions to nonferrous technology, to copper casting economics and for his service to the metallurgical profession."

Harrison H. Schmitt, "For total dedication to the service of mankind, in the preparation of his mind and body, so that his short stay on the Moon could provide the maximum contribution to earth sciences."

John Elliott Sherborne, "For generous and unselfish professional service, and for wisdom, integrity, and exceptional technical competence in portraying and advancing the role of minerals for mankind, particularly the availability of petroleum."

Carl Wagner, "For his wide ranging contributions to metallurgical science and education, especially for his studies of the chemical aspects of electrical conduction in non-metallic solids which have led to important industrial applications, for his contributions to the thermodynamics of alloys and for his leadership of one of the world's greatest research institutes."

The JAMES DOUGLAS GOLD MEDAL to Herbert Humphrey Kellogg, "For the breadth and quality of his contributions - as research scientist and educator - to the scientific understanding of metal extraction procedures, exemplified in chlorine metallurgy."

The BENJAMIN F. FAIRLESS AWARD to John Hugh Chesters, "In recognition of scientific and technological contributions in the development of steelplant refractories, design of furnaces and analyzation of flow patterns of gases and fluids."

The HAL WILLIAMS HARDINGE AWARD to Kenneth Knight Landes, "Eminent geologist, author and educator. For his contributions to the development of industrial minerals, especially limestone, dolomite and the evaporate minerals."

The ROBERT EARLL McCONNELL AWARD to Maurice Ewing, "In recognition of his significiant discoveries of new sources of mineral supply during his exploration of the ocean basins of the world, and of his scientific contributions in the technological development and use of ocean and ocean-floor probing instruments, which will materially enhance the standard of living of mankind."

The ERSKINE RAMSAY MEDAL to Dennis Lee McElroy, "For his devoted service to the mining industry through his roles as an educator, an advisor to the Government, a coal company executive, and an officer in the professional society of AIME."

The ROBERT H. RICHARDS AWARD to John Dixon Vincent, "In recognition of his outstanding contributions to the mineral industry in the fields of milling practices, design of processing plants and innovations in metallurgical developments."

The ENVIRONMENTAL CONSERVATION DISTINGUISHED SERVICE AWARD to John R. Mansell, "In appreciation for his dedication to the formulation and execution of a successful program uniting the conservation of the environment with the drilling for and production of a major petroleum source in the Long Beach Harbor area."

The MINERAL ECONOMICS AWARD to W. Keith Buck, "For contributions to the profession of Mineral Economics through profound studies of the social and economic aspects of mineral economics development, the establishment of a high professional level of mineral economic analysis within the government of Canada, and significant and unique leadership, in several official capacities, of the Council of Economics, AIME."

The MINERAL INDUSTRY EDUCATION AWARD to Robert Louis Whiting, "For his distinguished accomplishments as an educator, petroleum engineer, author and administrator, and for his devotion, loyalty and dedication to petroleum engineering and minerals industry education."

The ROCK MECHANICS AWARD to William F. Brace, "As a scientist and educator in recognition of his outstanding contributions to experimental rock mechanics, especially fracture and its role in earthquake source mechanisms."

The ROSSITER W. RAYMOND MEMORIAL AWARD to A. Richard Sinclair for his paper, "Heat Transfer Effects in Deep Well Fracturing".

LEGION OF HONOR FIFTY-YEAR MEMBER INSIGNIA were conferred upon the following twenty-nine members: Arvid E. Anderson, S. K. Atkinson, George E. Bayles, Charles H. Behre, Jr., Byron M. Bird, John S. Brown, J. Palmer Camm, Edward A. Capillon, Robert E. Crockett, Henry L. Day, Fred D. DeVaney, Lawrence Eddy, A. W. Fahrenwald, James L. Gregg, Carl T. Hayden, George C. Heikes, R. P. Heuer, Evan Just, Waldemar A. Knoll, Otto G. Lellep, Walter E. Remmers, H. E. Rorschach, Morris A. Schapiro, Quincy A. Shaw, Henry A. Spalding, Lyon F. Terry, S. A. Thompson, Lloyd C. White, Gloyd M. Wiles.

CERTIFIED PUBLIC ACCOUNTANTS

IN PRINCIPAL AREAS

Board of Directors

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

We have examined the balance sheet of AMERICAN INSTITUTE of MINING, METALLURGICAL, and PETROLEUM ENGINEERS, INC. as of November 30, 1973 and the related statements of revenue and expenses, surplus (deficit) and changes in endowment and custodian funds for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We previously examined and reported upon the financial statements for the year ended November 30, 1972.

In our opinion, the aforementioned financial statements present fairly the financial position of American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. at November 30, 1973 and 1972, and the results of its operations and the changes in its financial position for the years then ended, in conformity with the accounting principles referred to in Note 1 applied on a consistent basis except for the changes, in which we concur, in the reporting entities referred to as "operating fund" and "endowment and custodian funds" as described in Note 2.

Coopers + Lybraud

New York, January 25, 1974.

AMERICAN INSTITUTE of MINING, METALLURGICAL, and PETROLEUM ENGINEERS, INC. BALANCE SHEETS, November 30, 1973 and 1972 (Notes 1 and 2)

ASSETS:	1973	1972	LIABILITIES and FUND BALANCES:	1973	1972
Operating fund: Cash and temporary cash investments	\$1,470,900	\$ 39,461	Operating fund: Accounts payable and accrued	# 000 000	100 20
Accounts receivable	227,803	131,346	Annual meeting surplus fund		
Inventories, at cost or lower: Publications on hand	31,710	46,281	Deferred credits to income:		
Jewelry and membership certificates		573	advance	459,054	385,893
	31,710	46,854	Life memberships	9,623	11,180
Prepaid expenses, deferred charges and other assets	99,303	104,417	Other	24,950	33,918
Total operating fund	1,829,716	322,078	Surplus (deficit) (ner statement	493,627	430,991
custodian fund			annexed)	995,153	(166,685)
interest (at market quotations			Total operating fund	1,829,716	322,078
plus accrued interest approximately \$3,984,000 in 1973 and			Endowment and custodian funds	* * * * * * * * * * * * * * * * * * * *	
45,240,000 in 19/2) (Notes to and 6)	3,827,826	4,127,502	Endowment funds	4,042,953	3,963,496
Cash and temporary cash investments	648,132	1,211,126	Custodian funds	433,005	1,375,132
	4,475,958	5,338,628		4,475,958	5,338,628
Founder Society advances to United Engineering Trustees, Inc. (Note 4)	265,000	265,000	Property fund (no change during 1973 and 1972) (Note 4)	265,000	265,000
	\$6,570,674	\$5,925,706		\$6,570,674	\$5,925,706

The accompanying notes are an integral part of the financial statements.

STATEMENTS of REVENUE and EXPENSES

for the years ended November 30, 1973 and 1972 (Notes 1 and 2)

מסי פלל - מלמניסתם כל פלפופת בפליכת המלנים וויף פלם	Excess of revenue over expenses (expenses over revenue) for the years	Publications Society direct expenses AIME headquarters	Conference management fees, interest, annual meeting and miscellaneous	Offshore Technology Conference: Attendance distribution Management fees Exhibit space commission	Advertising and publication sales, net Appropriations from endowment and custodian funds	Revenue: Members' dues and entrance fees	
omparability of which had been added by the decemtualization of the	\$ 30,452	<u>330,739</u> 330,739	16,570 361,191	18,090	120,133	\$206,398	Headquarters and All-Institute
ביים המים למפת ש	\$ 10,752	460,198 419,424 75,621 955,243	144,481 965,995	31,187	330,928 9,736	\$449,663	Society of Mining Engineers of AIME
FF00+0d by +b0 /	(<u>\$ 48,961</u>)	236,155 346,389 40,678 623,222	17,137 574,261	11,840	250,616 45,264	\$249,404	The Metallurgical Society of AIME
. + + + + + + + + + + + + + + + + + + +	\$ 178,410	367,507 713,970 90,099 1,171,576	231,407	221,570 69,100 14,656	456,343	\$ 356,910	Society of Petroleum Engineers of AIME
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	a	(206,398) (206,398)	(206, 398)	· ·		(\$206,398)	Elimination of Dues Allocated to Headquarters from Societies
	\$ 170,653	1,063,860 1,479,783(c) 330,739(c) 2,874,382	409,595(B) 3,045,035	282,687(A) 69,100 14,656	1,037,887 175,133	\$1,055,977	Total 1973
	(\$ 229,151)	1,058,617 618,942 607,361 2,284,920	132,266	40,160 62,400 9,605	795,082 147,323	\$ 868,933	Total 1972

The following notes relate to amounts, the comparability of which has been affected by the decentralization of the Institute's business office. (See Note 2 to financial statements):

Notes:

A. In the current year, all distributable income is included in the Statement of Revenue and Expenses. In 1972, approximately \$134,000 applicable to SPE was included in the Statement of Changes in Endowment and Custodian Funds under the caption "Revenue from conferences and committee meetings, net."

- m Prior to 1973, net income from conferences that were financed through "activities funds" was included in the Statement of Changes in Endowment and Custodian Funds. In 1972, the amount approximated \$205,000. For the current year, approximately \$230,000 of such income is included in this statement.
- Ω The amount shown for 1973, \$1,479,783, includes approximately \$100,000 of conference expenses applicable to SPE which were charged to custodian funds in 1972. In addition, the expenses of the constituent societies' business offices as well as each society's costs for pensions and other fringe benefits are included in the \$1,479,783. The comparable amounts for 1972 were included in the caption "AIME headquarters."

The accompanying notes are an integral part of the financial statements.

1972

1973

166,685)(\$139,929)				(139,929)		148,895	53,500		(229,151)	(166,685)				(\$166,685)
(\$ 166,685)			(90,427) 1,024,613	857,928			52,000		170,653	1,080,581	55,000	30,428	85,428	\$ 995,153
	\$1,115,040		(90,427)											
Balance, beginning of year	Adjustments relating to decentralization (Note 2): Transfer of activities fund balances to surplus	Excess of market value over book value of custodian funds transferred to SME and		Transfer from endowment and	ian funds related t	Funding of the deficits for 1971 of SME, TMS and SPE (A)	funding of deficit of Journal of Metals	revenue	year		Transfer to custodian funds	Purchase of annuity for retiring employee		Balance, end of year

(A) Commencing December 1, 1972, the operating results of the constituent societies as reflected in the Statement of Revenue and Expenses are closed to this surplus account. (See Note 2 to financial statements.)

The accompanying notes are an integral part of the financial statements.

STATEMENTS of CHANGES in ENDOWMENT and CUSTODIAN FUNDS for the years ended November 30, 1973 and 1972 (Notes 1 and 2)

Balance of fund accounts, end of year	Expenses and appropriations: Publication expenses Transfer to operating fund surplus Awards Lecture series and student travel Sundry expenses Appropriations to working fund	net Revenue from conferences and committee meetings, net Revenue from distinguished lecture program Royalties from publishers and oil deeds Other	utions r from operating fund surplus n (loss) from sale of securities t and dividends f books, volumes, etc.	Adjustments relating to decentralization (Note 2): Transfer of activities fund balances to surplus Transfer from surplus of excess of market value over book value of custodian funds transferred to SME-AIME and TMS-AIME Balance, as adjusted	Balance of fund accounts, beginning of year	
\$4,042,953	187, 491 52,000 24,038 7,219 15,707 121,000 407,455	10,370 1,114 486,912	29, 939 113, 245 160, 623 171, 621	3,963,496	\$3, 963,496	Endowment Fund Accounts
\$ 433,005	56,102 7,595 12,622 41,000 117,319	33,843(A) 14,159 199,805	3,306 55,000 2,020 27,724 63,753	(1,115,040) 90,427 350,519	\$1,375,132	1973 Custodian Fund Accounts
\$4, 475 , 958	524,774	686,717 5,000,732		(1,024,613) 4,314,015	\$5,338,628	<u>Total</u>
\$3, 963,496	99, 105 53, 500 33, 303 6, 727 38, 955 97, 323 328, 913	802 8,225 319,407	17,803 44,060 187,597 60,920	3,973,002	\$3,973,002	Endowment Fund Accounts
\$1,375,132	10, 399 148, 895 7, 872 15, 496 19, 073 50, 000	243,748(A) 7,601 36,627 404,163	17, 314 594 51, 380 46, 899	1,222,704	\$1,222,704	1972 Custodian Fund Accounts
\$5,338,628	580,648	723,570 5,919,276		5, 195, 706	\$5, 195, 706	Total

⁽A) As a result of the transfer of the activities funds to operating fund, the revenue associated with such funds is shown in the Statement of Revenue and Expense. Approximately \$205,000 of such income was included under this caption in 1972. (See Note 2 to financial statements.) The accompanying notes are an integral part of the financial statements.

NOTES to FINANCIAL STATEMENTS

1. Accounting Policies

The financial statements of the American Institute of Mining, Metallurgical and Petroleum Engineers, Inc. (The Institute) are prepared in accordance with generally accepted accounting principles, except for the treatment of expenditures for equipment, furniture and fixtures which is explained below. The Institute's significant accounting policies are as follows:

a. General

The financial statements include the accounts of Headquarters and All-Institute (AIME Headquarters), the Society of Mining Engineers (SME-AIME), the Society of Petroleum Engineers (SPE-AIME) and The Metallurgical Society (TMS-AIME), the three societies being referred to as the constituent The financial statements do not include assets, liabilities, revenues or expenses of Local Sections, Divisions or Special Committees except for the Offshore Technology Conference (OTC). Advances to the OTC, which approximate the Institute's equity in the net assets of the OTC (at November 30, 1973 OTC's net assets are comprised principally of cash) are included in Endowment and Custodian fund cash on the balance sheet. Income from the OTC is included in the Statement of Revenue and Expenses.

b. Investments

Investments are stated at cost with regard to those purchased or at market value on date of gift with regard to those received as contributions, plus accrued interest where applicable. Gains or losses on the sale of investments which are part of the endowment and custodian commingled pool of investments are determined on the basis of average cost and are allocated pro rata to the individual fund balances.

c. Interest and Dividend Income

Interest from investments is recorded on the accrual basis. Dividends are recorded on the cash basis; however, such basis of accounting does not differ significantly from the generally accepted method of accruing dividends on the record date.

NOTES to FINANCIAL STATEMENTS, Continued

d. Membership Dues

Membership dues are recorded as income in the accounting period to which they relate.

e. Expenditures for Equipment, Furniture and Fixtures

Expenditures for equipment, furniture and fixtures are charged to expense as incurred, a practice followed by many nonprofit organizations. Generally accepted accounting principles for profit-oriented business organizations require the capitalization and subsequent depreciation of such expenditures (see Note 3).

f. Pensions

The Institute has a contributory pension plan for all full-time employees who have satisfied certain age and years of service requirements. Actuarially computed pension costs, including amortization of prior service costs over a fifteen-year period, are funded and charged to expense each year.

2. Decentralization

- At November 30, 1972 custodian fund balances were comprised of:
 (i) funds which can be expended only for specific purposes and (ii) so-called "activities funds" of the three constituent societies which are not restricted and can be used in connection with the societies' day-to-day operations. These "activities funds" were classified as custodian funds because AIME headquarters performed the related record keeping on behalf of the societies.
- Effective December 1, 1972, the activities of the AIME head-quarter's business office were decentralized and the record-keeping responsibility and related net assets for the aforementioned "activities funds," were transferred to the constituent societies. In addition, the record-keeping responsibilities and related assets for certain custodian funds which are restricted as to the nature of expenditures were transferred from AIME headquarters to SME-AIME and TMS-AIME. The above transfers are reflected in the accompanying 1973 financial statements as follows:
 - a. An amount aggregating \$1,115,040 representing the November 30, 1972 "activities funds" balances (and related net assets) has been transferred from custodian funds to operating fund.

NOTES to FINANCIAL STATEMENTS, Continued

b. Because the method used in determining the amount of custodian funds to be transferred from AIME headquarters to SME-AIME and TMS-AIME was based on market values of the related investments, the amount so transferred to SME-AIME and TMS-AIME on December 1, 1972 exceeded their proportionate share of the book value of the total custodian funds on that date by \$90,427. Such excess has been charged to operating fund surplus.

As a result of the transfers described in (a) above, certain items of revenue and expense which in 1972 and prior years' financial statements were included in the Statement of Changes in Endowment and Custodian Funds, are now recorded in the Statement of Revenue and Expenses. It was not practicable to restate the 1972 Statements of Changes in Endowment and Custodian Funds and Revenue and Expenses. The major items of difference are explained by footnotes to the applicable statements.

3. Capital Expenditures

Amounts expended for equipment, furniture and fixtures for 1973 and 1972 aggregated \$23,197 and \$7,565, respectively. Such amounts are included under "Society Direct Expenses" and "AIME Headquarters" in the Statement of Revenues and Expenses.

4. Advances to United Engineering Trustees, Inc.

By agreements dated February 28, 1958, the Founders' Agreement of August 10, 1916 between the four Founder Societies and United Engineering Trustees, Inc. was superseded by a new Founders' Agreement which provides, in part, for advances of \$265,000 to United Engineering Trustees, Inc. by the American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. in connection with the erection of the United Engineering Center Building. Such advances are not repayable by United Engineering Trustees, Inc., except upon its dissolution, but advances bear interest at 4% per annum.

5. Pensions

Pension expense amounted to \$55,500 in 1973 and \$42,500 in 1972. The actuarially computed value of vested benefits exceeded plan assets by approximately \$16,400 at November 30, 1973 and \$57,800 at November 30, 1972.

NOTES to FINANCIAL STATEMENTS, Continued

6. Changes in Endowment and Custodian Fund Investments

	<u> 1973</u>	<u> 1972</u>
Investments, at beginning of year	\$4,127,502	\$4,737,640
Purchases of securities	2,293,330	<u>555,516</u>
	6,420,832	5,293,156
Sales of securities	2,708,271	1,121,000
	3,712,561	4,172,156
Net gain on sales of securities	115,265	44,654
Investments, end of year	<u>\$3,827,826</u>	\$4,127,502

(Temporary cash investments are not included in the above tabulation.)

MEMBERSHIP DATA

AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS, INC.

1870 to 1972

 YEAR	MEMBER \ TOTAL	YEAR	MEMBER TOTAL	YEA R	MEMBER TOTAL	YEAR	MEMBER TOTAL	YEAR	MEMBER TOTAL
1870 1 2 3 4 1875 6 7 8	- 22 157 254 273 345 - 554 628 732 734 788	1880 1 2 3 4 1885 6 7 8	- 832 1,031 1,213 1,345 1,467 - 1,439 1,504 1,615 1,714 1,857	1890 1 2 3 4 1895 6 7 8	2,000 2,134 2,258 2,392 2,437 2,437 2,390 2,455 2,562 2,564	1900 1 2 3 4 1905 6 7 8	2,450 2,897 3,262 3,741 3,530 3,886 4,048 4,191 4,241 4,284	1910 1 2 3 4 1915 6 7 8	4,210 4,169 4,290 4,284 4,150 4,650 5,880 6,597 7,856 8,426

YEA R	CORPORATE MEMBERS	STUDENT MEMBERS	GRAND TOTAL	YEAR	CORPORATE MEMBERS	STUDENT MEMBERS	TRAND TOTAL
1920	- 8,388	1,920	10,308	1940	10,828	4,171	14,999
1	8,879	1,326	10,205	1	11,334	4,179	15,513
2	8,805	1,328	9,413	2	11,675	3,489	15,164
3	7,813	1,315	9,128	3	12,081	2,707	14,788
ŭ	7,555	1,263	8,818	4	12,334	1,497	13,831
1925	- 7,569 	1,157	8,726	1945	12,910	1,088	13,998
6	7,385	1,131	8,516	6	14,119	1,737	15,856
7	7,434	1,004	8,438	7	15,000	3,117	18,117
8	7,488	1,000	8,488	8	15,580	4,069	19,649
9	7,823	1,033	8,856	9	16,315	4,952	21,267
1930	- 7.831	1,162	8,993	1950	17,082	4,534	21,616
1	7,843	1,131	8,974	1	17,482	2,229	19,711
2	7,685	975	8,660	2	18,643	1,964	20,607
3	7.155	672	7,827	3	19,718	2,195	21,913
4	6,887	62 8	7,515	. 4	21,816	2,179	23,995
1935	- 6,916	1,006	7,922	1955	23,723	2,825	26, 548
-6	7,326	1,620	8,946	6	26,298	3,415	29,71 3
7	8 ,2 79	2,147	10,426	7	28,823	3 , 974	3 2,7 97
8	9,005	2,898	11,903	. 8	30 , 553	3 , 757	34,310
9	9,614	3 , 760	13,374	9	33,378	2,332	35,710

YEAR	CORPORATE MEMBERS	STUDENT MEMBERS	GRAND TOTAL
1960 2 3 4 1965 6 7 8 9 1970 1 2	34,852 34,368 34,437 34,838 35,740 36,878 38,912 40,278 42,015 43,300 43,095 44,627 45,742 45,154	1,893 1,633 1,857 2,289 2,370 2,561 2,706 3,183 3,437 3,438 3,863 3,962 3,652 4,572	36,745 36,001 36,294 37,127 38,110 39,439 41,618 43,461 45,488 46,738 46,958 46,958 48,589 49,394 49,726

AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS, INC. MEMBERSHIP STATISTICS January 1, 1974

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AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS, INC. MEMBERSHIP STATISTICS January 1, 1974

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154 572 726	136 52		59 1 229 1 172 1 124 1 137 1	80 117 103 118 191 119 154 120	72 111 89 112 195 113 71 114 209 115	119 106 122 107 63 108 156 109 115 110					119 78 40					81 305 164 946	GRAND TOTAL	·

CLASSIFICATION OF MEMBERS

	AIME -	THREE YEA	R TALLY			
	1971	1972	1973	SME	TMS	SPE
Honorary Members Members Associates Juniors Total	31 29,867 7,640 7,089 44,627	34 30,240 8,178 7,290 45,742	7,842	14 11,189 2,950 2,734 16,887	1,788	14 12,917 3,104 3,238 19,273
Student Members GRAND TOTAL	3,962 48,589	$\frac{3,652}{49,394}$	4,572 49,725	$\frac{1,442}{18,329}$	$\frac{2,113}{11,106}$	$\frac{1,017}{20,290}$
	MEMBER	SHIP GAINS	1973			
New applications, rei of status, and studen	•	_	4,474	1,364	490	2,620
		SHIP LOSSE				
Deaths, resignations,	drops and un	accepted.	4,186	1,677	1,162	1,347
	1973 NET MEM	BERSHIP GA	INS (LOSS	ES)		
Figures are valid for	calendar yea	r 1973.	288	(313)	(672)	1,004

DISTRIBUTION OF MEMBERS IN SOCIETIES DURING LAST DECADE AS APPROXIMATE PERCENTAGE

DECEMBER	SME %	TMS %	SPE %
1960	35.6	24.1	40.3
1961	35.3	25.4	39.3
1962	34.5	26.7	38.8
1963	33.6	28.0	38.4
1964	33.0	29.1	37.9
1965	32.2	29.5	38.3
1966	32.9	29.6	37.5
1967	33.7	29.2	37.1
1968	33.7	29.1	37.2
1969	33.7	29.1	37.2
1970	34.0	29.0	37.0
1971	35.4	26.9	37.7
1972	36.7	25.6	37.7
1973	36.9	22.3	40.8

AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS

REPORT OF THE ASSISTANT FOR PUBLIC AFFAIRS, AIME FOR 1973

The office of the Assistant for Public Affairs has assumed the responsibility of managing the AIME Annual Meeting, formerly administered by the AIME Meetings Department. The Assistant for Public Affairs assists the Executive Director in support of AIME committees, preparation of agendas and writing of minutes. He further assists in the design, writing and production of AIME Annual Report and informational brochures and folders on the Institute. Preparation of press releases on all appropriate activities of the Institute on a year-round basis are also his responsibility. He reports directly to the Executive Director and assists in special projects assigned by him.

The position of AIME Assistant for Public Affairs is held by Mr. Frederick C. Motts. He assumed this position in May, 1973 after serving in various capacities in The Metallurgical Society of AIME.

102nd AIME Annual Meeting

The three headquarter hotels for the 102nd ATME Annual Meeting held in Chicago, Illinois were the Conrad Hilton, Sheraton Blackstone and the Pick Congress. The Chicago Convention Bureau was in charge of the housing and our Meeting used 2300 rooms.

The Host Section Annual Meeting Committee under the Chairmanship of Mr. John P. Weir did a commendable job in support of the AIME staff and made everyone feel at home in the "Windy City".

Registrati	<u>on</u>	% of At	tendance
AIME members Non members Authors Students WAAIME	1819 591 165 156 302	SME-AIM TMS-AIM SPE-AIM	E 33.2%
Total	3033		

The 1973 Meeting ended with a net surplus of \$9,083.47 which was credited to the AIME Annual Meeting Surplus Fund and brought the balance in the Fund to \$40,648.90.

Respectfully submitted,

Frederick C. Motts

AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS

REPORT

of the

WESTERN FIELD SECRETARY

To provide a geographically appropriate agency for communication, liaison and coordination among the widespread Western Sections, Subsections and Student Chapters, the Institute maintains a Western Field Office at 808 Newhouse Building, Salt Lake City, Utah. This office is staffed by the Western Field Secretary, Clifford J. Hicks, and his secretary, Evelyn K. Burke. It is the intent of the office to offer the manifold services of AIME to western mining and metallurgical society members with a maximum of personal contact and individual attention. So that the functions of the office could be carried out in this spirit during 1973, visits—some multiple, as indicated below by number—were made to eight different Sections and Subsections and 17 major conferences, plus AIME and Society Boards of Directors' meetings and meetings of Regional Councils of Section Delegates.

Sections and Subsections Visited During 1973 by C. J. Hicks

Ajo Subsection (Arizona Section), Ajo, Arizona.
Colorado Plateau Section, Grand Junction, Colorado.
Colorado Section, Denver, Colorado.
Northern Nevada Section, Reno, Nevada.
Oklahoma Metals and Mining Section, Oklahoma City, Oklahoma.
San Francisco Section, San Francisco, California.
Tucson Subsection (Arizona Section), Tucson, Arizona.
Utah Section, Salt Lake City, Utah (7).

Major Meetings and Conferences Attended During 1973 by C. J. Hicks

Annual Meeting of the Minnesota Section, Duluth, Minnesota. 34th Annual Mining Symposium of the University of Minnesota, Duluth. 76th National Western Mining Conference and Exhibition of the Colorado Mining Association, Denver, Colorado.

102nd Annual Meeting, AIME, Chicago, Illinois.

Symposium on Electronic Materials of the Northern California Metallurgical Section, Palo Alto, California.

Engineers' Days of the Colorado School of Mines, Golden, Colorado. Pacific Northwest Metals and Minerals Conference, Coeur d'Alene, Idaho. Pacific Southwest Mineral Industry Conference, Phoenix, Arizona.

Annual Meeting of the MPD Subsection of the Colorado Section, Colorado Springs, Colorado.

Eighteenth Annual Convention of the Wyoming Mining Association, Casper, Wyoming.

70th Anniversary Convention of the Idaho Mining Association, Sun Valley, Idaho.

Ninth Annual Intermountain Minerals Conference of the Intermountain Section, Vail, Colorado.

Mining Convention/Environmental Show of the American Mining Congress, Denver, Colorado.

SME Fall Meeting and Materials Handling Conference, Pittsburgh, Pennsylvania.

International Mining Days Joint Convention, El Paso, Texas.

Annual Meeting, Arizona Section, Tucson, Arizona.

79th Annual Convention of the Northwest Mining Association, Spokane, Washington.

Some meetings and conferences attended by the Western Field Secretary were written up in a form suitable for publication and submitted, together with appropriate, captioned photographs, to the Editorial Director of Mining Engineering.

Conference Assistance

The Western Field Office directly assisted in the planning and conduct of eight major mineral conferences held during 1973 and acted in an advisory capacity for several others.

Staff assistance in the following 1974 meetings is being, or will be, supplied by the Western Field Office:

January Annual Meeting of the Minnesota Section, Duluth, Minnesota.

February 23-28 103rd AIME Annual Meeting, Dallas, Texas.

April 25-26 Pacific Northwest Metals and Minerals Conference,

Seattle, Washington.

May 9-11 Minerals Symposium, Casper, Wyoming.

Mid-May Annual Meeting of MPD Subsection (Colorado Section),

Colorado Springs, Colorado.

August Intermountain Minerals Conference, Vail, Colorado.

September 23-25 SME-AIME Fall Meeting, Acapulco, Mexico.

Reports

A comprehensive report of the activities and plans of the Western Field Office was submitted, monthly, to the office of the Executive Director and Secretary of AIME with copies to three Assistant Secretaries.

Official Section Visits

The Western Field Office is responsible for the administration of the Official Section Visits Program wherein AIME, SME and TMS officers and directors are invited to attend meetings of mining and metals Sections and Student Chapters of their choice during the Institute year. There were 47 visits to Sections and Subsections, and 15 Student Chapters were visited.

Student Summer Employment

A program designed to help students of minerals engineering obtain summer employment was again administered by this office. Numerous companies actively engaged in mining, metallurgical and petroleum operations were contacted and requested to consider offering summer employment to students of minerals engineering. A total of eight companies responded positively with over 95 job openings. Ninety-eight Faculty Sponsors of Student Chapters and other appropriate individuals were supplied, simultaneously, with the necessary information regarding the openings so that interested students might make application directly to the employers.

The 1973 response by industry to this program is considerably less than that of previous years. This is probably a result of the general increase of unemployment in the industry. In reply to the December mailing, 23 companies pledged 266 jobs which will be listed in Bulletin No. 1 to be issued the first week in January, 1974. This is a marked improvement over past years.

1973 Henry Krumb Lecture Series

The 1973 AIME Krumb Lecturers were W. Keith Buck, Robert H. Merrill, and John D. Morgan, Jr. The Western Field Office acted as coordinating agency between the lecturers and the AIME Sections and Subsections at which their lectures were given. Twenty-one lectures were presented to various Sections and Subsections during the year.

Rossiter W. Raymond Award and Alfred Noble Prize

The Rossiter W. Raymond Award Committee, chaired by Albert R. C. Westwood, Research Institute for Advanced Studies, Baltimore, Maryland, reviewed the papers forwarded by this office in October and selected:

For the Raymond Award -

Ben G. Burke, Member SPE, for his paper entitled, "The Analysis of Drilling Barge Motions in a Random Sea"

For the Noble Prize Award consideration -

Robert C. Earlougher, Jr., Member SPE, for his paper entitled, "Variable Flow Rate Reservoir Limit Testing"

The Western Field Secretary has acted as AIME administrator for these two awards.

Information concerning AIME's selection for consideration by the Noble Committee was forwarded to the Institute's representative on this Committee, Dr. John J. Gilman, for further action.

New Subsections

The Pinal Mountain Subsection of the Arizona Section was organized and

accepted as an official AIME unit during the year. This Subsection serves a copper mining district around the communities of Globe, Miami and Superior.

Preliminary studies indicate member potential for a possible Subsection of the Snake River (Idaho) Section in the Boise, Idaho area.

Plans for 1974

Plans are to continue and, if deemed necessary, expand all aforementioned services and functions.

Sincerest thanks are offered to the many Institute members whose helpful comments, willing cooperation and warm hospitality made 1973 a successful and rewarding year.

Respectfully submitted,

CLIFFORD J. HICKS

Western Field Secretary, AIME

SOCIETY OF MINING ENGINEERS OF AIME

Report Of The Executive Secretary

1973

1973 was an eventful year for the Society of MINING ENGINEERS (SME/AIME). A year that brought: a change in staff leadership; a decision to relocate the Headquarter Offices; a dues increase resulting in a small operating surplus; a decline in membership; the publication of The Mining Engineering Handbook; and, more operating autonomy as the Society became responsible for its own business services.

Mr. John C. Fox became Executive Secretary Emeritus on April 1, 1973. Mr. Claude L. Crowley, formerly Director of Administration of AIME and at the time Executive Secretary of The Metallurgical Society, was elected to replace Mr. Fox as Executive Secretary.

On June 30, 1973, Mr. John V. Beall resigned as Assistant Executive Secretary and Editorial Director. The Editorial Board selected Mr. Duane H. Haley, formerly Editor of <u>The Mining Record</u>, to replace Mr. Beall as Editor of MINING ENGINEERING. It was decided to suspend the position of Editorial Director.

Miss Marianne Snedeker continued as an Assistant Executive Secretary and as Manager of SME's Books and Transaction Department. The suspension of the Editorial Director position was in part to recognize that Miss Snedeker operated superbly in direct responsible charge of her activities. Mrs. Lillian E. Donaldson continued as Assistant to the Executive Secretary and is the person most responsible for the smooth transition with the change of Executive Secretaries.

Mrs. Ruth M. Orologio continued her highly effective performance as Meetings Manager -- a job made more difficult because of budgetary manpower restrictions and increasing responsibilities. Mrs. Orologio also was appointed the Assistant Conference Manager of the Rapid Excavation and Tunneling Conference (RETC), an AIME/American Society of Civil Engineers (ASCE) jointly sponsored and managed activity.

Mr. Antin J. Bendersky, former AIME Comptroller, joined the SME/AIME staff as an Assistant Executive Secretary and Business Manager concurrent to the change-over to Mode IV on December 1, 1972. Mr. Bendersky resigned in October, 1973. He was replaced on a consulting basis by Mr. David W. Rome in New York City and on a permanent basis by Mr. Charles H. Jennings of Salt Lake City, Utah.

After almost 4 years of study and deliberation, a decision was made to move the SME/AIME Headquarters Offices from the United Engineering Center (UEC) in New York to the Research Park in Salt Lake City, Utah. This decision is considered cost justified, and operating economics of ten to twelve percent are anticipated. The staff was instructed to implement the move as quickly as possible -- the planned effective date of change is March 1, 1974.

FINANCES

Fiscal Year 1973 was the first with an operating surplus since 1967. The following shows the financial performance of the Society since 1966:

SME/AIME

Financial Performance -- Fiscal Years 1966 through 1973 (000's omitted)

Year	<u>1966</u>	<u>1967</u>	1968	1969	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
Revenue Expense Surplus (Deficit	556.6	597.6	652.2	\$717.7 728.2 \$(10.5)	793.1	833.9	838.2	947.9

The surplus for FY73 resulted from a 50% dues increase which resulted in a 36% increase in dues revenue—the difference in the rate increase and the realized increase in revenue is a measure of member resistance to the increase manifisted by resignation or non payment of dues. Overall Revenue was up about 20%, three-fourths of which were from the dues increase. Expenses were up about 14%, almost half of which was increased Business Service Costs under Mode IV. While overall expenses have increased 70% over the 1966 amount, Business Service Costs have gone up 184%. Studies leading to the decision to decentralize the business office indicated that SME/AIME spent less per Corporate Member, \$5.27, than TMS/AIME, \$7.82, or SPE/AIME, \$8.87, on these Business Services. It was thought by some that these large differences indicated that SME/AIME was paying less than its fair share. If these thoughts be valid, part of the large increase for 73 is a leveling factor of continuing cost. It is thought that part of this increase is also a one-time cost of implementation and catch-up.

PUBLICATIONS

The financial performance of the Publications Program for 1973 was about \$9,000 better than for FY72 -- with Expenses down about \$6,000 and Revenue up about \$3,000. The following indicates the financial performance since 1966:

SME/AIME

Financial Performance -- Publications Program -- FY66 through FY73 (000's omitted)

Year	<u>1966</u>	1967	1968	1969	1970	1971	<u>1972</u>	<u>1973</u>
Revenue	\$347. 5	\$353.0	\$346.4	\$397.2	\$409.2	\$410.9	\$366.9	\$370.1
Expense	339.5	370.4	400.8	445.9	477.8	534.8	466.9	460.0
Surplus	(Deficit) \$ 8.0	\$(17.4)	\$(54.4)	\$(48.7)	\$(68.6)	(123.9)	\$(100.0)	\$(90.1)

MINING ENGINEERING

Despite a change in Editors and an industry-wide retrenchment in Advertising Dollars, MINING ENGINEERING held its own in 1973 and actually called upon fewer dues dollars than the past two years. Financial performance since 1966 is shown below.

SME/AIME

FINANCIAL PERFORMANCE - MINING ENGINEERING - FY66 THROUGH FY73 (000'S OMITTED)

Year	1966	1967	1968	1969	<u>1970</u>	1971	<u>1972</u>	<u>1973</u>
Revenue:								
Advertising	\$292.2	\$295.2	\$291.0	\$332.8	\$342.3	\$325.9	\$271.3	\$274.6
Subscriptions	14.3	15.2	16.7	16.6	20.7	16.0	21.0	22.3
Total	\$306.5	\$310.4	\$307.7	\$349.4	\$363.0	\$341.9	\$292.3	\$296.9
Expenses:								
Advertising	\$128.1	\$150.2	\$159.5	\$183.1	\$196.9	\$207.8	\$184.4	\$168.6
Directory	11.8	14.8	17.2	14.7	13.8	31.5	13.2	25.2
Editorial	145.4	155.8	170.8	183.3	200.6	234.1	193.6	179.0
Total	\$285.3	\$320.8	\$347.5	\$381.1	\$411.3	<u>\$473.4</u>	\$391.2	\$372.8
Surplus (Defici	t)\$ 21.2	\$(10.4)	\$(39.8)	\$(31.7)	\$ (48.3)	$\overline{(131.5)}$	\$(98.9)	\$ (75.9)

The most notable editorial achievements in 1973 from an advertiser appeal standpoint were:

Fall Special Issue -- highlighting Iron Ore in the U.S. and Materials Handling

February Annual Review

July Membership Directory

Also, for the first time in recent history, definitive editorial plans for the following year were prepared. This planning Lead-time should allow more sustained and effective advertising sales effort as well as improved editorial content. Some editorial innovations planned for 1974 will include incorporation of the Industrial Minerals Review, a traditional January offering, into

the February Annual Review for purposes of publishing a "True Review", and a special October open pit issue timed to coincide with the American Mining Congress Meeting in Las Vegas, Nevada.

Planning for 1974 presents some unusual challenges. The likely state of the economy is clearly undefinable as is the probable impact of this state upon Advertising Revenue. In anticipation of further retrenchment, the advertising salesforce has been reduced from 3 to 2 and efforts will be made to hold costs to the minimum level consistent with a continuing commercial posture in the market place.

Another unknown factor for planning is the impact of office relocation as MINING ENGINEERING will start 1974 with an entirely new editorial staff. Plans are being developed to reformat and revitalize MINING ENGINEERING to an anticipatory rather than reactionary posture.

TRANSACTIONS

SME Transactions: In calendar year 1973, a total of 376 pages will have been published, which includes approximately 66 technical papers, 6 technical notes, 7 discussions of published papers, and the annual index (note: the December issue was not quite finalized when this report was written).

In the last year and a half, due to an increase in the number of papers submitted and due to the increased efficiency of the publications review committees, more papers have been accepted than can be published within the SME/AIME Transactions budget. During fiscal 1973, there had also been a drop in subscriptions. In order to handle that backlog of accepted papers and to improve the quality of the Mining Transactions, both as a contribution to the permanent technical literature and to attract more subscribers, the SME Editorial Board and Transactions Editorial Committee at a joint meeting in Pittsburgh in September decided to:

- Make a page allocation for each Division for each issue, the allocation to be based on the average number of pages published in Transactions by Division in the prior four years.
- 2. Have each Divisional Publications Chairman each quarter give a priority rating for publication of the papers accepted for Transactions by his committee.
- 3. Generally tighten adherence to the review standards and procedures to improve the quality of accepted papers. Particular attention is being paid to avoiding duplication of material in these papers that has already become part of the permanent technical literature. In order to highlight the review standards, a new format for the review forms sent to readers has been introduced. Considerable attention is being given by the various Publications Committees to the general problem of a balance in Transactions of the theoretical-type papers with the operating type that have broader readership appeal.
- 4. Alternative means of financing Transactions are being explored. Since the Pittsburgh meeting, MPD has agreed to use Divisional funds for additional pages in each issue until the backlog of accepted papers is reduced. The other Divisions are being encouraged to find ways to finance additional pages.

5. Two matters are being referred by the SME Editorial Board-Transactions Editorial Committee to the SME Board of Directors in February 1974. (1) Consideration of whether SME Transactions should continue to be subsidized by general Society funds. (2) A recommendation of a price increase for the Transactions quarterly magazine and bound volume in 1975.

The following shows the financial performance of the program since 1966:

SME-AIME

FINANCIAL PERFORMANCE - SME TRANSACTIONS - FY66 THROUGH FY73 (000'S OMITTED)

<u>Year</u>	<u>1966</u>	1967	1968	1969	<u>1970</u>	<u> 1971</u>	1972	1973
Revenue:	\$ 27.5	\$ 27.8	\$ 27.5	\$ 31.7	\$ 28.1	\$ 27.4	\$ 26.6	\$ 24.3
Expense:	37.9	30.4	28.5	41.2	42.3	37.8	36.6	41.0*
(Deficit):	\$(10.4)	\$(2.6)	\$(1.0)	\$(9.5)	\$(14.2)	\$(10.4)	\$(10.0)	\$(16.7)

^{*} Includes about \$4.0 extraordinary expense, inventory write-off.

The joint group will meet one or more times a year to continue its study of and surveillance over SME's Transactions.

BOOK PUBLISHING

In 1973, SME-AIME published:

1973 International Hydrometallurgy Symposium, D. J. I. Evans and R.S. Shoemaker, editors, 1184 pages, hard cover, illus., index, February 1973

Elements of Practical Coal Mining, S.M. Cassidy, editor, 614 pages, hard cover, illus., index, May 1973

SME Mining Engineering Handbook, A.B. Cummins, I.A. Given, editors, 2 vols., 2714 pages, hard cover, illus., index, December 1973

SME Mining Engineering Handbook: After the additional time needed in 1972 to finalize the remaining sections incomplete at the time of Ivan Given's death in October 1972, final manuscripts were sent to the printer in early 1973 and all material except the Index was in type by spring 1973. Maple Press, who was to print the book gave us a firm publication date of September and told us that through the summer, as sections in page form were cleared, they would print them so that only the Index would be left to print in August. Bruce and Jenifer Kennedy compiled the Index which contains over 14,000 entries. Until September it was the intention of everyone involved that the Handbook be one volume.

In September, staff found that Maple Press had done nothing they had stated they would do. In addition, they informed us that the paper for the book, which was delivered to them in June, would be enough for only 6,000 copies of the 10,000 order, and that they could not complete the work until late November. Since it was anticipated that the orders being held would total over 6,000 copies and because of the many difficulties with Maple Press, the decision was made in late September to take the book away from Maple and give the job to another printer. Port City Press, with whom SME has had excellent relations over the years, was contacted and arrangements were made for printing the book. Port City acquired additional paper and has printed the book. Delivery of ordered copies was begun the week of December 15 and all ordered copies were in the mail by December 28. The orders totaled 6,081 copies, including 2,396 copies shipped to the U.S. Bureau of Mines. Sales to date have grossed over \$79,400; in addition, the U.S. Bureau of Mines has been billed \$57,504 for the copies shipped.

Maple Press for the SME Fall Meeting in Pittsburgh, supplied a dummy copy of the Handbook. It was apparent that the complete Handbook, containing over 2700 pages, even though printed on lightweight paper, was unwieldy as one volume. Therefore, Port City has printed the book in two, convenient-to-use volumes. The handsome, two-volume, red-covered set is truly a fine tribute to the over 270 people involved, and especially to Arthur B. Cummins, Chairman of the Editorial Board, and the late Ivan A. Given, Editor. The Handbook is a joint project of SME-AIME and the AIME Seeley W. Mudd Memorial Fund.

Froth Flotation: SME-AIME bound the remaining 500 copies of the book that were in storage at a bindery. A decision to reprint this title, although such a reprint was authorized by the SME Board of Directors, has been postponed until the present supply is depleted.

Elements of Practical Coal Mining: This book, edited by Samuel M. Cassidy with the assistance of Douglas F. Crickmer and David A. Zegeer, was published in late May 1973, and is truly SME's "Best Seller"! Of the 3,000 copies printed, only about 1,000 were in stock in November 1973 and the orders continue to be heavy. A second printing of 3,000 copies is on order and should be complete in early 1974. By that time the first printing will be almost depleted. The cost of producing the book has been realized and \$2,300 excess of income over expense at the end of fiscal year 1973 is being kept in reserve to partially offset the approximately \$9,000 needed to reprint it. SME-AIME is selling the book at a special bulk rate, primarily to technical schools, colleges, and coal companies. Most of these orders have ranged from 25 to 50 copies. There have been two large orders: 500 from Consolidation Coal Company and 185 from Inland Steel Company. In the future, 50% excess of income over expense will revert to the Coal Division Scholarship Fund.

SME-AIME is marketing the proceedings volumes from the 10th and 11th Symposia on the Application of Computer Methods in the Mineral Industry for the South African Institute of Mining & Metallurgy and the University of Arizona, respectively.

The SME-AIME Book Department is currently working on Economics of the Mineral Industries, third edition, N.A. Vogely, editor, which is a publication of the AIME Seeley W. Mudd Memorial Fund; and Industrial Minerals and Rocks, fourth edition, Stanley J. Lefond, editor, which is a joint venture of SME-AIME and the AIME Mudd Fund.

Mineral Processing Handbook: Kingsport Press has been selected as the printer of this book and the first two sections are in type. It is staff 's understanding that 20 sections are complete or nearly complete.

Solution Mining Symposium 1974: As of December 19, 1973, all but three manuscripts for this book were in staff hands. It is anticipated that this approximately 500-page, soft-cover book will be available at the AIME Annual Meeting in Dallas in February 1974. Editors of the book are F.F. Aplan, W.A. McKinney, and A.D. Pernichele.

MEETINGS

Attendance at national meetings was down in 1973 as the numbers of SME-AIME members attending both the AIME Annual and SME-AIME Fall Meetings were smaller than for any year since 1965. The continued downtrend at the Fall Meeting has resulted in a working party of the Planning Committee to examine all facets of the Society's meetings. It is expected that this report will be available in February 1975.

The point should be made that the Fall Meeting has purposefully been moved around the U.S. to take the Society to the members. The following chart indicates that this goal has apparently been achieved as the attendance at the meeting has been strongly oriented toward the region, and these immediately adjacent, within which the meeting is held.

(CHART ON NEXT PAGE)

Fall Meeting Attendance by Region 1.6% . 4% 9.8% 111.6% 4.3% 73.4% 6.3% 53.3% 5.5% 7.8% 7.4% 1967 1966 LAS VEGAS TAMPA FOREIGN = 4.1% ATTENDANCE - 1248 ATTENDANCE - 1265 FOREIGN 4.7% 4.6% 62.8% 12.1% 4.6% 51.5% 8.8% .9% . 6% 3.9% 3.9% 1968 1969 MINNEAPOLIS SALT LAKE CITY ATTENDANCE - 2012 FOREIGN = 8.1%ATTENDANCE -1113 FOREIGN = 11.3% 1.6% 6.9% 8.4% 52.7% 54.5% 5.2% 6% 4.7% 1971 1970 ST. LOUIS SEATTLE FOREIGN = 14.7%ATTENDANCE 644 20.4% ATTENDANCE دير 1.8% 4.3% 4.7% 5.5%6.6% 8.5% 5.0% 75.4% 2.7% 4.7% 1973 1972 PITTSBURGH BIRMINGHAM 568 FOREIGN = 4.9% ATTENDANCE FOREIGN = 3.6% ATTENDANCE 585

SME-AIME ATTENDANCE - AIME ANNUAL MEETING

<u>Year</u>	Location	Number	Percent
1963	Dallas, Texas	1079	47 %
1964	New York, New York	1221	44.2%
1965	Chicago, Illinois	1073	48.2%
1966	New York, New York	1438	47.7% > 47.8% Average
1967	Los Angeles, California	1421	48.5%
1968	New York, New York	1632	51.1%
1969	Washington, D.C.	1478	63.1%
1970	Denver, Colorado	2399	69.4%
1971	New York, New York	1460	62.0% 6 6 % Average
1972	San Francisco, California	1581	72.8%
1973	Chicago, Illinois	1145	62.9%
1974	Dallas, Texas		

SME-AIME

FINANCIAL PERFORMANCE - OFF SHORE TECHNOLOGY CONFERENCE (OTC) FY70 THROUGH FY73

<u>Year</u>	Surplus to SME-AIME
1970	\$12,198
1971	11,994
1972	19,731
1973	31,187
TOTAL,	\$75,110

The Coal Division did not hold a Spring Meeting during 1973 but is planning a meeting for 1974 to be held in Saint Louis, Missouri, on April 18 and 19.

Plans for the Second RETC, to be held in San Francisco, California, June 24-27, 1974, are progressing satisfactorily. The SME-AIME staff provides meeting services for this joint AIME/ASCE venture.

MEMBERSHIP

SME-AIME started 1973 with 18,329 members and ended the year with 18,329 members; however; this was only because student membership grew by 313 to offset the 313 loss of Corporate members. This was the first loss in corporate membership since 1968 and can be attributed to the dues increase.

Assumptions made for the dues increase anticipated a 7% loss of corporate members from the January 1, 1972, base. The Society ended the first year of the new dues rate with 216 more corporate members than on January 1, 1972. Therefore the impact of the dues increase has not been as harmful as thought possible. The following charts provide membership statistics since 1966:

SME-AIME

		<u>M</u>	<u>EMBER SH</u>	IP BY D	IVISIO	NAL INTE	REST	•	
						1		TOTAL	
AS OF	M & E COAL	IndMD	MPD	EDUC.	ECON.	STUD.	UNCLASS	MEMBER S	MEMBERS
1/1/1966	6,361 1,342	657	1,971	80	226	574	1,688	12,899	12,325
1/1/1967	NA NA	NA	NA	NA	NA	966	NA	14,711	13,745
1/1/1968	7,074 1,377	776	2,284	83	273	773	1,849	14,489	13,716
1/1/1969	7,423 1,435	793	2,384	86	300	1,005	2,001	15,427	14,422
1/1/1970	7,782 1,436	79 5	2,416	90	301	995	2,360	16,175	15,180
1/1/1971	8,035 1,413	811	2,448	95	321	864	2,655	16,642	15,778
1/1/1972	8,288 1,501	838	2,538	99	348	1,170	3,059	17,841	16,671
1/1/1973	8,348 1,518	851	2,541	104	364	1,129	3,474	18,329	17,200
1/1/1974	8,151 1,517	834	2,517	106	349	1,442	3,413	18,329	16,887

SME-AIME MEMBERSHIP BY GRADE

			2.4				
AS OF	MEMBERS	MEMBERS	MEMBERS	ASSOC.	JUNIORS	STUDENTS	
1/1/1966	12,899	12,325					
1/1/1967	14,711	13,745	10,010	2,153	1,582	966	
1/1/1968	14,489	13,716	9,892	2,214	1,610	77 3	
1/1/1969	15,427	14,422	10,763	2,449	1,786	1,372	
1/1/1970	16,175	15,180	11,089	2,583	2,141	1,330	
1/1/1971	16,642	15,778	11,503	2 ,7 53	2,305	1,653	
1/1/1972	17,841	16,671	11,343	2,840	2,488	1,170	
1/1/1973	18,329	17,200	11,410	3,054	2,736	1,129	
1/1/1974	18,329	16,887	11,203	2,950	2,734	1,442	

SME-AIME

CORPORATE MEMBERSHIP CHANGES -- 1972/1973

Losses	<u>1972</u>	<u>1973</u>
Deaths	175	146
Resignations	212	411
Drops	612	1076
Unaccepted	56	<u>44</u>
TOTAL	1,058	1,677
<u>Gains</u>	<u>1972</u>	<u>1973</u>
Total	1,587	1,364
Net	529	-313
		e de la companya de Notas
Corporate Members	17,200	16,887
Student Members	1,129	1,442
TOTAL	18,329	<u>18,329</u>
		v -

BUSINESS SERVICES

As previously mentioned, SME-AIME became responsible for its own business services in 1973 with the decentralization of the AIME Business Office. The transition to this more autonomous operation was difficult and expensive and took most of the year; however, at year end it is believed that most problems have been solved and activities are on a current basis.

1974 promises more challenge with an almost 100% manning turn-over. Because of this, plans are made to have some duality of operation both in New York and Salt Lake City through April. Priority will be placed upon direct member contact through address changes, order fulfillment, and accounting data. It is expected that a new data system will be developed and "on-line" before discontinuing the present system in New York.

HONORS & AWARDS

The following honors and awards were presented to SME of AIME members during 1973:

Installed as Honorary Members of AIME

James Boyd

Erskine Ramsay Medal

Dennis L. McElroy

Robert H. Richards Award

Robert S. Shoemaker

Hal Williams Hardinge Award

Elburt Franklin Osborn

Percy Nicholls Award

Samuel M. Cassidy

Mineral Economics Award

W. Keith Buck

Daniel C. Jackling Award

Stewart R. Wallace

Howard N. Eavenson Award

Samuel M. Cassidy

Robert Peele Award

J. B. Sellers

G. R. Haworth

P. G. Zambas

SME Best Presentation Award

T. H. Eyde

D. W. Houston

AIME Legion of Honor

(50 Years of Continuous Membership)

Of the 29 AIME Members who were made Members of the AIME Legion of Honor last year, 19 were members of the Society of Mining Engineers of AIME.

They were:

Arvid E. Anderson
S. K. Atkinson
George E. Bayles
Charles H. Behre, Jr.
Byron M. Bird
John S. Brown
Robert E. Crochett
Henry L. Day
Fred D. DeVaney

A. W. Fahrenwald
Carl T. Hayden
George C. Heikes
Evan Just
Waldemar A. Knoll
Morris A. Schapiro
Quincy A. Shaw
Henry A. Spalding
Lloyd C. White
Gloyd M. Wiles

ACKNOWLEDGMENT

We appreciate all the help from the members and staff of the Society. We particularly owe a note of thanks to those staff members who will not move with the Society but who have stayed and continued to perform in their professional manner. We will miss these dedicated and capable people and wish them all future success.

We also express our gratitude to those key people who will ensure the continual success of SME-AIME by relocating with the Headquarters.

We anticipate the challenge -- and opportunities of the future with enthusiasm.

Respectfully submitted

CLAUDE L. CROWLEY

Executive Secretary

1/'74

THE METALLURGICAL SOCIETY OF AIME

REPORT

of the

EXECUTIVE SECRETARY OF THE METALLURGICAL SOCIETY OF AIME

for 1973

The year 1973 could perhaps be described as the year of 'New Beginnings' for The Metallurgical Society of AIME.

It was the first year under full operation of Mode IV, which brought within Society management our own business services including membership records. The Society also assumed administrative responsibility for fourteen AIME Sections with predominant TMS-AIME Membership and some thirty-seven Student Chapters. While adjusting to this added work load, we have attempted to bring the Society Headquarters in closer communication with the Membership at large, Local Sections, and Student Chapters.

Financially, the Society is on the verge of a "New Beginning" for we should finish 1973 with our best financial position in recent years. Our improved financial condition is due to a close monitoring of member services within additional revenues from the dues increase of 1973. JOM advertising continues as a bright spot in our income figures along with subscriptions to JOM. Metallurgical Transactions will turn a surplus for 1973 for the first time since the joint venture began in 1970.

A "New Beginning" in publications of books and proceedings commenced in the fall of 1973 with a revitalized marketing system. An all-inclusive Publications Brochure has been compiled and distributed through mailing lists, handouts to conference attendees and Society correspondence. An improved system for evaluation of book publications is being developed to make certain a particular book is serving the Members and the technology. The handling of book orders has been under review with efforts to minimize the time of turn-over from the receipt of the order to actual mailing.

Membership development has seen a 'New Beginning" in 1973 with a more personalized approach. Membership Committees have been most effective in their drives for new members at conferences. We have learned much this past year on the value of personal member contact in soliciting new members.

The administration of Local Sections and Student Chapters under TMS-AIME saw a "New Beginning" to open a channel of communication from them to the Society Officers and Board Members. Monthly newsletters were begun in September to all Sections and Student Chapters - these contain a summary of Society activities. The Panel of Section Advisors consisting of four representatives has met with the Board of Directors since their June Meeting and act as direct laison with all sections. Plans are now being

studied to implement a formal regional representation for Sections to the Society Board of Directors. The dialogue is developing and should prove beneficial to both the Board and Sections and primarily the Membership at large.

The Society has also entered a "New Beginning" in examining its future organization and role in the Materials Science/Metallurgical field. The Iron and Steel Division has approved a proposal to establish a separate Iron and Steel Society within the AIME framework. The Institute of Metals Division and Extractive Metallurgy Division are currently studying their options and best course of action to continue to serve their Membership. We expect these studies will lead to a "New Beginning" for TMS-AIME to restructure itself and identify its future in serving the diverse metallurgical community. The year of 1973 has been the year of a "New Beginning" for The Metallurgical Society of AIME, and we look forward to 1974 in anticipation of refining and improving all our programs.

FY 73 FINAL FINANCIAL RESULTS

REVENUE

Member Dues and Fees	249,405
Publications	254,241
AIME Endowments	4,246
Interest and Dividend	s 12,804
Meetings	73,207
Miscellaneous	2,995
TOTAL	596,916

EXPENSE

AIME Corporate Headquarters Business Office Western Field Secretary Society Headquarters Membership Development Rebates (Section and Student) Publications Pensions and Related Meetings	43,149 87,473 4,965 163,724 14,662 14,208 298,772 11,636 6,914
TOTAL	645,503
DEFICIT	(48,587)

Deficit to be paid as follows: \$42,029 from JOM to be paid \$35,334 Krumb Fund; \$6,695 JOM Rebuilding Fund. Remaining \$6,557 from TMS-AIME Activities Fund.

SCHEDULE OF TMS-AIME CONFERENCES FOR 1974 AND 1975

1974	
January 23 - 24	16th Mechanical Working and Steel Processing Conference, Ramada Inn, Dolton, Illinois
February 23 - 28	103rd ATME Annual Meeting, Sheraton-Dallas, Dallas, Texas
April 28 - May 1	57th National Open Hearth and Basic Oxygen Steel Conference and 33rd Ironmaking Conference, Chalfonte- Haddon Hall, Atlantic City, New Jersey
May 5 - 8	6th Annual Offshore Technology Conference, Astrohall, Astroworld Hotel, Houston, Texas
May 19 - 23	TMS-AIME 6th Annual Spring Meeting, University of Pittsburgh, Pittsburgh, Pennsylvania
September 8 - 11	Electronic Materials Conference, Sheraton-Boston, Boston, Massachusetts
October 21 - 24	Materials Science Symposium, TMS-AIME Fall Meeting with ASM Metals Show and Materials Engineering Congress, Statler Hilton, Detroit, Michigan
December 11 - 13	32nd Electric Furnace Conference, Pittsburgh Hilton, Pittsburgh, Pennsylvania
<u>1975</u>	
January 22 - 23	17th Mechanical Working and Steel Processing Conference, Pittsburgh, Pennsylvania
February 16 - 20	104th AIME Annual Meeting, New York Hilton and Americana, New York, New York
April 13 - 16	58th National Open Hearth and Basic Oxygen Steel Conference and 34th Ironmaking Conference, Royal York, Toronto, Canada
May 4 - 7	7th Annual Offshore Technology Conference, Astrohall, Astroworld Hotel, Houston, Texas
May	TMS-AIME 7th Annual Spring Meeting
September 29 - October 2	Materials Science Symposium, TMS-AIME Fall Meeting, Chicago, Illinois

TECHNICAL CONFERENCES

The Metallurgical Society of AIME, through its Divisions, sponsored or co-sponsored nine technical conferences during 1973.

Conference	Attendance	Number of Tech- nical Sessions	Number of Papers Scheduled
15th Mechanical Work- ing and Steel Proces- sing Conference, Holi- day Inn at Greentree Pittsburgh, Pennsyl- vania	147	6	20
102nd AIME Annual Meeting, Conrad Hil- ton, Sheraton Black- stone, and Pick Con- gress, Chicago, Illi- nois, February 25 - March 1, 1973	602	47	245
56th National Open Hearth and Basic Oxy- gen Steel Conference Sheraton Cleveland Hotel, Cleveland, Ohio, April 9-11, 1973	977	7	31
32nd Ironmaking Conference, Sheraton Cleveland, Cleveland Ohio, April 9-11, 1973	503	8	35
5th Annual Offshore Technology Conference, Astrohall, Astroworld, Houston, Texas, April 29-May 1, 1973	*	*	*
TMS-AIME 5th Annual Spring Meeting, Uni-versity of Pennsylvania, Philadelphia, Pennsylvania, May 29-June 1, 1973	658	60	413

Conference 15th Electronic Materials Conference, Stardust Hotel, Las Vegas, Nevada, August	Attendance n		Number of Papers Scheduled 45
27-29, 1973 TMS-AIME Fall Meeting, Materials Science Symposium, McCormick Place, Chicago, Illinois, October 1-4, 1973	1531**		331 MSS
31st Electric Furnace Conference, Netherland Hilton, Cincinnati, Ohio December 5-7, 1973	, 1088	11	45

^{*} TMS-AIME programming was minimal -- the Board of Directors is aware of this and has taken steps to improve TMS-AIME programming activities in 1974. Tentative plans indicate papers to fill two sessions have been submitted.

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MEMBERSHIP DEVELOPMENT

Membership development in 1973 saw an increased emphasis on personal contact by membership recruitment programs at each TMS-AIME Meeting. A new exhibit booth displaying the services and benefits of the Society was first used at the Offshore Technology Conference and subsequently at the Fall Meeting and Electric Furnace Conference. This provided an attractive focal point for membership activities.

The new membership application has proved a valuable tool in explaining the scope, benefits, and procedures for membership application in TMS-AIME. The Publication Brochure has also been a great incentive both for membership and book sales. A redesigned brochure covering all books published by the Society will be available in early 1974. Work on a prospectus for TMS-AIME has been under way for several months. This should be a factual brochure on all aspects of the Society, which we hope to have available by mid 1974.

We have been pleased to note improved relations with the various Divisional Membership Committees. All are taking a more active role in recruiting new

^{**} This is for the entire Materials Engineering Congress. TMS-AIME participation only in the Material Science Symposium - no breakdown of attendance is available on that portion separately.

members at meetings as well as preparing letters for follow-up contact. The 1973 Electric Furnace Conference set a record with 60 new members which was 19.3% of the non-member registration.

A total of 638 new members were recruited in 1973. A statistical breakdown by Division follows. We hope to keep the momentum going in 1974.

TMS-AIME MEMBERSHIP January 1, 1974 By Grade Classification

Member Associate Member Junior Member Student Member		5,872 1,788 1,067 2,113
Honorary Member Senior Member Life		9 222 16
	Grand Total	11,107

IMS-AIME MEMBERSHIP 1969 - 1973

	1969	1970	1971	1972	1973
EMD	1,612	1,607	1,641	1,616	1,552
IMD	4,284	4,085	4,008	3,741	3,268
ISD	3,553	3,413	3,283	3,198	2,974
Education	29	27	30	30	30
Economics	77	75	68	64	55
Unclassified	1,768	1,329	1,352	1,345	1,155
Student	1,617	2,098	2,039	1,785	2,113
Total	12,940	12,634	12,421	11,779	11,107

The following is a tabulation of new members by divisional affiliation:

Tota1	215 102 124 188	638
Nov73	100	33
Sept73	197	39
July-73	41 × 1	33
May-73	177	82
March-73	1244 ₁₁	135
Jan73	58 14 26 1	98
Oct72	11 32 58	29
Primary Interest	Iron and Steel Extractive Metallurgy Institute of Metals Council of Economics-AIME Mining & Exploration-SME Minerals Processing-SME Industrial Minerals-SME	

JOURNAL OF METALS

For the fiscal year ending November 30, 1973, the Journal of Metals published 912 pages (covers included.) The page content was made up as follows:

Staff-written articles	180 pages
Papers from IMD Division	74 pages
Papers from ISD Division	91 pages
Papers from EMD Division	52 pages
Advertising, including classified	140 pages
House advertisements, paper selection, preprints and books	40 pages
There were six conference programs which utilized(including housing and registration forms)	59 pages

The conference programs presented were:

15th Mechanical Working and Steel Processing Conference

102nd AIME Annual Meeting

32nd Ironmaking Conference

56th National Open Hearth and Basic Oxygen Steel Conference

5th Annual Spring Meeting

TMS/ASM Fall Meeting

31st Electric Furnace Conference

The balance of editorial pages was made up with contributed articles based on current trends, i.e., energy crisis, ecology, and environment, and Society news, e.g., metals profession, call for papers, coming events, book reviews, etc.

The September issue of the Journal of Metals included a 200-page directory listing all members of The Metallurgical Society. This accounts for the increase in total page count over 1972, wherein there were only 822 pages (covers included.)

JOURNAL OF METALS ADVERTISING

A comparison of advertising results for the years 1972 and 1973 reveals the following:

1972

1973

103 display and classified advertising pages

140 display and classified advertising pages

Net Billing \$73,600

Net Billing \$120,000

Seven special issues are planned for 1974. They are as follows:

MARCH:

NOH BOSC

APRIL:

Ironmaking

MAY:

Ferro-Alloys

JULY:

Refractories in Metal Making

SEPTEMBER:

Directory Issue

NOVEMBER:

Electric Furnace Issue

DECEMBER:

Mechanical Working

METALLURGICAL TRANSACTIONS - 1973

Technical Papers Published

	Number of TPs	Pages	Total Pages
EMD ISD IMD and ASM	39 19 <u>264</u>	273.0 171.0 2008.0	
Total TPs Publish	ned 322	2452.0	2452

Communications Published

	Number of Comms	Pages	
EMD ISD IMD and ASM	8 3 <u>84</u>	18.0 5.5 165.5	
Total Comms Published	95	189.0	189
Title Pages			12
Table of Contents, Author	Instructions, etc.	•	39
Blank Numbered Pages			<u>164</u>
Total Numbered Pages in 19	73 METALLURGICAL	TRANSACTIONS	2856*

In accordance with objectives declared before the merger was approved by both Societies, the publication is intended to serve the needs of the entire metallurgical profession. Thus, Society distinctions are eliminated throughout both the review and publication process. Consequently, the divisional listings in the tabular data represent the distribution of effort in the Board of Review and not the source of papers.

^{*} An index of 41 pages follows page 2856

PAPER SELECTION

The program continues to be a major part of our overall publication services to the Membership. The objective of the paper selection programs is the swift publication and broad dissimination of technical information not currently published in other TMS-AIME media.

In 1973 there were 86 paper selections published in conjunction with the Annual Meeting.

All paper selections from 1968 through 1973 have been indexed and listed in the newly revised TMS-AIME Publications Brochure. This totals more than 500 papers which can be ordered through TMS-AIME or the Institute for Iron and Steel Studies.

TMS PUBLICATIONS FROM 1973

Proceeding Volumes

Electric Furnace Proceedings 1972-Volume 30, Palmer House, Chicago, Illinois, 45 Papers, 278 Pages.

<u>Ironmaking Proceedings 1973-Volume 32</u>, Cleveland, Ohio, 58 Papers, 408 Pages.

Open Hearth Proceedings 1973-Volume 56, Sheraton-Cleveland Hotel, Cleveland, Ohio, 47 Papers, 452 Pages.

Mechanical Working and Steel Processing XI, Pittsburgh, Pennsylvania, 20 Papers, 290 Pages.

Books

Light Metals 1973-Volumes I and II, Editor, A.V. Clack, 102nd Annual Meeting, Chicago, Illinois, 36 Papers, 920 Pages.

Processing and Properties of Low Carbon Steel, Editor, J.M. Gray, 1972 Fall Meeting, Cleveland, Ohio, 22 Papers, 419 Pages.

High Temperature Gas-Metal Reactions in Mixed Environments, Editor, Jansson Foroulis, 1972 Spring Meeting, Boston, Massachusetts, 17 Papers, 409 Pages.

Failure Modes in Composites, Editor, Istvan Toth, 1972 Spring Meeting, Boston, Massachusetts, 20 Papers, 471 Pages.

Continuous Casting, 1973, Editor, K. R. Olen, 102nd Annual Meeting, Chicago, Illinois, 20 Papers, 312 Pages.

Nickel Segregation 1973, Editor, A. A. Dor, 1972 Annual Meeting, San Fransisco, California, 12 Papers, 25 Discussions, 310 Pages.

PROCEEDINGS ADVERTISING

Within the Iron and Steel Division of The Metallurgical Society of AIME the practice of selling advertising to help offset the cost of conference proceedings is employed by three of the five operating committees. Following are results of the three committees' efforts during 1973:

Conference	No. of Ads	Income
55th National Open Hearth and Basic Oxygen Steel Conference	34	\$10,346.00
31st Ironmaking Conference	14	\$ 4,191.75
30th Electric Furnace Conference	32	\$ 9,370.50

ABSTRACT BULLETINS

During 1973, two Abstract Bulletins were published by The Metallurgical Society of AIME:

cturrangicar botter	ly of mind.	A1 - + +	n	
		Abstracts	Pages	Sessions
The Metallurgical Spring Meeting Al		361	155	60
Conference sponsor	ored by the	Institute o	of Metals	Division of
AIME Annual Meeti	ing	247	96	48
TMS portion of pr		sored by the	e Extracti	ve Metallurg

TECHNICAL INFORMATION EXCHANGE

Technical Information Exchange is a small exhibit that is put on at two of the Iron and Steel Division's Conferences each year; the National Open Hearth and Basic Oxygen Steel Conference/Ironmaking Conference, and the Electric Furnace Conference.

The purpose of the Technical Information Exchange program is to provide an opportunity for supplier companies who sell equipment to steel mills by purchasing exhibit booth space at these conferences to display their products.

Each exhibit is held adjacent to the registration area at a conference thus promoting maximum interchange between conference attendees and representatives from the supplier companies demonstrating the equipment the attendees use every day in their jobs.

Results of the TIE programs held during 1973 are as follows:

Conference	Number of Exhibitors
56th National Open Hearth and Basic Oxygen Steel Conference/	
33rd Ironmaking Conference	
31st Electric Furnace Conference	15

HONORS AND AWARDS

Newly elected Fellows of The Metallurgical Society of AIME installed at the 1973 Annual Meeting in Chicago, were:

John H. Frye, Jr. William O. Philbrook Raymond L. Smith

TMS-AIME Board of Directors has elected the following members to the grade of Fellow in 1974:

Tasuku Fuwa John Price Hirth John R. Low, Jr. Albert W. Schlechten Clarence E. Sims

The following awards were presented by The Metallurgical Society of AIME during 1973:

Robert Lansing Hardy Gold Medal

J. W. Morris, Jr. was the recipient of the Robert Lansing Hardy Gold Medal in recognition of his exceptional promise in the field of metallurgy. This award is given annually to a metallurgist who has not reached his thirtieth birthday before the end of the calendar year during which the selection is made.

Champion H. Mathewson Gold Medal

The Champion H. Mathewson Gold Medal was bestowed upon Julian Szekely for his important contributions on application of principles of heat and mass transfer to metallurgical problems of industrial importance.

Robert W. Hunt Silver Medal Award

T. Raymond Meadowcroft and Robert J. Milbourne were selected for this award for the best original paper on iron and steel, "A New Process for Continuously Casting Aluminum Killed Steel."

Extractive Metallurgy Division Science Award

This award was bestowed upon Julian Szekely and J.W. Evans for their two-part paper "Studies in Gas Solid Reactions," Part I: "A Structural Model for the Reaction of Porous Oxides with a Reducing Gas," Part II: "An Experimental Study of Nickel Oxide Reduction with Hydrogen."

Extractive Metallurgy Division Technology Award

Nickolas J. Themelis, G. C. McKerrow, Peter Tarassoff and Geoffrey D. Hallett were the recipients of this award for their paper, "The Noranda Process for Continuous Smelting and Converting of Copper Concentrates."

J. E. Johnson, Jr. Award

This award is given to encourage young men in creative work in the metallurgy or manufacture of pig iron. The recipient of this award must be under forty years of age when he completes the work that merits recognition. The 1973 recipient was Donald W. R. George for his achievements in the use of blast furnace hydrocarbon injection and the development of practices for various slag qualities.

Frank B. McKune Award

This award is given for the best paper on open hearth or basic oxygen steelmaking written by an author or authors under forty years of age. The recipients of the 1973 award were Ronald L. W. Holmes and John G. Harhai for their paper "Argon Degassing of Seamless Tubular Steels."

Conference Award

This award is the "runner-up" to the Frank B. McKune Award and was presented in 1973 to Ram K. Iyengar and Frank C. Petrilli for their paper "Slagmaking Reactions in the BOF Process."

Charles H. Herty, Jr. Award

Paul E. Nilles and Roland A. Holper were selected for this award for the best paper presented at the 1972 National Open Hearth and Basic Oxygen Steel Conference, and published in the Conference Proceedings. The title of their paper is "Converter Noise and Off Gas Temperature Measurements, Tools for Better BOF Control."

John Chipman Award

This award was established in April 1971 by the Process Technology Committee of the Iron and Steel Division to perpetuate the inspiration of John Chipman's outstanding contribution to the science of iron and steelmaking. In 1973, the award was bestowed upon P. J. Bilek, J. W. Farrell and D. C. Hilty for their paper "Inclusions Originating from Reoxidation of Liquid Steel."

Ironmaking Conference Award

The 1973 Ironmaking Conference Award was presented to K. S. Nanavati and G. M. Cohen for the best paper presented at the 1972 Ironmaking Conference. The paper title is "Rogue Elements in Ironmaking."

Mechanical Working and Steel Processing Conference Highest Award

Established in 1971 by the Mechanical Working and Steel Processing Committee of the Iron and Steel Division, this award is given for the best paper presented at the previous year's conference and published in the proceedings. In 1973 the award was presented to J. F. Held and

E. J. Paliwoda for their paper 'Role of Second Phase Particles in Forming Operations."

Mechanical Working and Steel Processing Conference Meritorious Award

This award is a "runner-up" to the Mechanical Working and Steel Processing Conference Highest Award and is given for the paper chosen as "runner-up" to the best paper presented at the previous year's conference and published in the Proceedings. The 1973 recipients of this award were T. V. Simkinson, R. P. Krupitzer, R. E. Mintus and W. F. Barclay for their paper "Effect of Thermal History on Properties of Hot-Rolled, Low-Carbon, Aluminum-Killed Steel Sheet."

Charles W. Briggs Award

This award is conferred for the best paper presented at the annual Electric Furnace Conference. The 1973 award was given to Arne Georg Arnesen and Bjorn Asphaug for their paper "Computer Control of a 39 MVA Electric Furnace for the Production of High Carbon Ferromanganese." This was considered the best paper presented at the 1972 Conference.

Joseph Becker Award

This award is given for distinguished achievements in coal carbonization and was presented in 1973 to Frederick Denig.

T. L. Joseph Award

The award is conferred for distinguished contributions to ironmaking operation, to a person who has significantly increased iron production or decreased the cost of doing so. The 1973 award was presented to John R. Barnes.

LECTURES

1973 Extractive Metallurgy Division Lecture

William A. Krivsky - "The Linde Argon-Oxygen Process for Stainless Steel"

1973 Institute of Metals Division Lecture and Robert Franklin Mehl Award

Raymond F. Decker - "Alloy Design, Using Second Phases"

1973 Howe Memorial Lecture (Iron and Steel Division)

Francis J. McMulkin - "What Direction - Steel?"

ACKNOWLEDGEMENT

Appreciation is extended to all members, officers, and directors of The Metallurgical Society of AIME. Special thanks to President Julius J. Harwood, EMD Chairman Frank Stephens, IMD Chairman, Harry Paxton, and ISD Chairman, Kurt Mattson. A particular word of gratitude to Carl Long who is stepping down as Treasurer of the Society after serving from 1967 to 1974.

Thanks also to the staff who have preformed most admirably. The staff as of January 1, 1974 by position are:

Alexander R. Scott, Executive Secretary Sheila Koeppel, Administrative Assistant Joan Licurse, Secretary

David B. Martin, Director of Member Services Helen Nelson, Secretary Darda Lourie, Publications Manager Barbara King, Publications Sales Clerk Adrienne Mintzer, Membership Records

Peter J. DeLuca, Business Services Manager Rosa Rivera, Bookkeeper John Gowell, Account Receivable Clerk

Lawrence G. Kuhn, Editor/Publisher - JOM Otto T. Johnson, Managing Editor Richard T. McQuillen, Advertising Sales Manager Vera Dailey, Editorial Assistant

Respectfully submitted,

alexander R. Scott

Alexander R. Scott Executive Secretary

SOCIETY OF PETROLEUM ENGINEERS OF AIME

REPORT

of the

EXECUTIVE DIRECTOR OF THE SOCIETY OF PETROLEUM ENGINEERS OF AIME

In 1973 the Society of Petroleum Engineers of AIME again experienced excellent membership growth and continued to expand its many technical and professional member services on an international level. SPE initiated several programs during the year aimed at involving the Society and its members in professional activities both inside and outside the petroleum industry. New SPE committees on Long-Range Planning, Publications, and Certification of SPE members were appointed during 1973. The purpose of the Certification program, which is to be thoroughly studied during 1974, is to expand SPE programs in the professional area and provide additional means for individual members to enhance their professional stature.

TECHNICAL SERVICES DEPARTMENT

During 1973 the SPE Board approved the formation of a Long-Range Publication Committee charged with responsibility to study the many SPE publications, determine member reaction to the programs, and to recommend a plan for the future publication programs of SPE. H. J. Ramey, Jr., Stanford U., is chairman of the Committee. Other Committee members include: Donald G. Russell, Shell Oil Co.; J. Don Clark, Union Oil Co. of California; Arlie Skov, Sohio Petroleum Co.; Richard A. Morse, Texas A & M U.; Roland Krueger, Union Oil Co. of California; George Bruce, Esso Production Research Co.; Aziz Odeh, Mobil Research & Development Corp.; and R. C. Earlougher, Jr., Marathon Oil Co.

Nearly 550 manuscripts were processed by the Technical Services Department during 1973. These include papers programmed, preprinted, and published. Twelve regional and/or special-interest symposia, including the 48th Annual Fall Meeting and the Fifth Annual Offshore Technology Conference, were sponsored by the Society in 1973. A total of 547 papers were programmed, 522 of these were preprinted, and 415 were reviewed for publication. The two editorial committees (Transactions Editorial and General Editorial) accepted approximately 40 percent of the papers reviewed.

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

Due to an error in collating, the report of the Executive Director of the Society of Petroleum Engineers of AIME is not in proper order. The report should be read as follows: pages 52, 53, 55, 57, 54, 56 and 58.

LOCAL SECTIONS

TECHNICAL INFORMATION COMMITTEES

Since the approval of the Technical Information Committee program by the SPE Board in late 1970, 18 SPE sections have formed local TIC's. The purpose of the committees is to provide a vehicle through which SPE members could correct inaccuracies in statements published by the media; could work behind the scenes with government and civic officials; and could develop community relations projects to enhance the image of the industry.

To date, the Society Technical Information Committee has communicated with NBC News on the national level to offer its assistance in the production of an "energy crisis" special. The Committee is also involved in sponsoring a series of "Community Relations" nights at local sections, and two local section TIC's have staged meetings with public officials and media representatives in conjunction with a talk by one of the Society's Distinguished Lecturers.

NEW SECTIONS

Two new sections were added to the Society during 1973. The Lagos Section, with 138 charter members, officially became a part of the SPE organization in March, 1973, and the Trinidad-Tobago Section was officially admitted to the Society in September, 1973.

SECTION VISITATION

SPE President Gerald E. Sherrod and members of the Society's Headquarters staff visited 34 sections during 1973. Officers from 35 of the Society's sections attended Regional Officers Conferences in 1973 where SPE staff members and officers and directors met to discuss Society operations.

MEMBER SERVICES

1973 was the first full year that all Society bookkeeping, membership record storage, and member services were handled from the SPE office in Dallas. Decentralization of the AIME Business Office, along with the consolidation of all membership records at the SPE Headquarters in Dallas, are programmed to permit SPE Headquarters to provide improved services to Society members.

FINANCE

The Society's consolidated income for 1973 totaled \$1,328,167 representing an increase of \$157,141 over the total for 1972. Income exceeded expenses by \$172,674.

the attendance and the number of papers presented at the 1973 SPE Regional Meetings is listed below.

City	Attendance	Number of Papers on Program
Houston, Texas Austin, Texas Dallas, Texas Corpus Christi, Texas London, England Casper, Wyoming Denver, Colorado Lubbock, Texas Pittsburgh, Pennsylvania	227 141 285 165 649 438 98 215	20 18 14 8 37 20 18 15
TOTAL:	2,411	168

DISTINGUISHED LECTURER PROGRAM

The Society's eight Distinguished Lecturers for 1972-73 presented more than 189 talks before 60 of SPE's sections.

The Distinguished Lecturer program is financed by the participating local sections, the AIME Henry L. Doherty Fund, and the SPE Operating Fund.

The 1972-73 SPE Distinguished Lecturers were:

Luther E. Bartlett, Atlantic Richfield Co.

Neal P. Cochran, U.S. Department of the Interior

Ira H. Cram, Consultant

Daniel N. Dietz, Koninklijke/Shell Exploratie en Produktie Laboratorium (retired)

L. W. Holm, Union Oil Co. of California

Martin G. Hubbard, Baker Oil Tools, Inc.

Arthur E. Joens, Exxon Company, U.S.A.

Hal M. Stanier, Sun Oil Co. (retired)

CONTINUING EDUCATION PROGRAM

VIDEO-TAPE COURSES

Production began during 1973 on "Production Operations Course III -- Well Stimulation". The 13-hour course on "Well Stimulation" is the third in a series of 10 seminar-type video-tape courses that the Society is recording dealing with all phases of production operations.

During 1973 "Production Operations Course I -- Well Completions" was taken by 239 SPE members, and "Course II -- Well Diagnosis" was taken by 524 SPE members. Late in 1973 plans were finalized for the production

Publication figures for the <u>Journal of Petroleum Technology</u> and the Society of Petroleum Engineers <u>Journal are listed</u> below.

National design of the state	umber of Papers	Number of	Pages
Journal of Petroleum Technology (month	ly)		
Forum papers Transactions papers Technical and Professional papers	15 25 65	36 253 504	
Society of Petroleum Engineers Journal	(bimonthly)		
Forum papers Transactions papers Technical and Professional papers	2 15 20	4 154 17 1	

A subscription to JPT is included in the annual dues payment; a \$5.00 per year subscription is charged for SPEJ. Net circulation for JPT was 21,740; net circulation for SPEJ was 3,638.

TRANSACTIONS

Transactions Volume 255 will be published in May, 1974, and will contain 40 papers and approximately 440 pages. The Transactions Volume costs \$6.25 when ordered with payment of annual dues; \$7.50 (member rate) when ordered separately.

REPRINT SERIES

Papers were selected for three reprint booklets during 1973. Reprint Series No. 6a: "Drilling", and Reprint Series No. 11: "Numerical Simulation" have been printed and Reprint Series No. 4a: "Field Case Histories, Oil Reservoirs" will be printed in 1974. Several new reprints are in various stages of committee preparation.

MONOGRAPH SERIES

No new Monographs were published during 1973. Volumes in various states of preparation at the end of the year include:

Cementing - Dwight Smith

Acidizing - J. L. Gidley, R. S. Schechter, and B. B. Williams

Profitability Criteria - Folkert Brons and Michael Silbergh

Multiphase Flow in Pipe - James P. Brill and Kermit E. Brown

Numerical Simulation - Calvin Mattax

Cumulative sales for the three existing Monographs at the end of 1973 were:

Pressure Buildup and Flow Tests in Wells (Vol. I, 1967):	14,170
Hydraulic Fracturing (Vol. II, 1970):	3,160
The Reservoir Engineering Aspects of Waterflooding	1 500
(Vol. III, 1971):	4,522

of the fourth course in the series -- "Workovers" -- with the following SPE members agreeing to serve as instructors:

James L. Rike, Rike Services Dwight K. Smith, Halliburton Services C. L. Wendorff, Dowell

To date, 41 SPE Local Sections have participated in the program by conducting at least one of the Society's video-tape courses, and more than 2,500 SPE members have completed at least one of the courses during the past six years.

TRAVELING LECTURE SERIES

In 1973, 259 SPE members took Traveling Lecture Courses in seven sections throughout the country. Since the creation of the Traveling Lecture Series in late 1970, some 750 members in 12 different sections have completed a Traveling Lecture course.

AWARDS

Two SPE members -- Michel T. Halbouty, a consulting geologist and petroleum engineer in Houston, and John E. Sherborne, Assistant Research Director for the Union Oil Co. of California -- were elected to Honorary Membership in the Institute in 1973.

The Society presented the following awards in 1973:

DeGolyer Distinguished Service Medal Thomas C. Frick, consultant

Lester C. Uren Award Henry J. Ramey, professor of

petroleum engineering at Stanford U.

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John Franklin Carll Award Paul D. Torrey, consultant

Cedric K. Ferguson Medal M. R. Todd, Shell Development Co.

Distinguished Service Award A. J. Horn, consultant

R. C. Earlougher, consultant

The Society, in 1973, again joined with the Petroleum Equipment Suppliers Association in awarding scholarships to undergraduate students pursuing degrees in petroleum engineering. The 1973 PESA Scholarship winners were:

Jimmie S.H. Lee, University of Oklahoma James B. Fraser, Montana Technology University Gary S. Childress, University of Texas at Austin

MEMBERSHIP DIRECTORY

The 1973-74 edition of the Membership Directory contained 264 pages and included alphabetical, geographical, and company listings of SPE-AIME members who returned Directory Data Forms. Production costs for the Directory totaled \$15,000 and advertising income was \$6,005. The SPE Membership Directory is mailed free of charge to all members who request it.

PREPRINTS

Each year SPE members are provided with preprints of papers presented at the Society's Fall Meeting and at the various regional and special-interest meetings held throughout the world. During 1973 a total of 522 papers, containing approximately 5,750 pages, were preprinted in conjunction with 12 regional and special-interest symposia, the Annual Fall Meeting, and the Offshore Technology Conference. This includes 187 Fall Meeting papers (approximately 2,060 pages) and 169 OTC papers (approximately 1,870 pages).

MEMBERSHIP

Total membership for the Society at the end of 1973 was 20,290, representing an increase of 1,004 members over the final 1972 figure. Corporate membership for 1973 was 19,273 with 1,017 student members.

	1970	1971	1972	1973
SPE Membership	17,682	18,327	19,286	20,290
New Member/Reinstatement Applications Received*	1,188	1,240	1,523	1,888
Members Lost (resignations, deaths, dropped owing	•			
dues)	1,240	1,104	1,034	1,347

^{*}Student applications and special reinstatements are not included in this figure.

MEETINGS

FALL MEETING, REGIONAL MEETINGS

SPE members traveled to Las Vegas, Nevada, in 1973 to conduct their Annual Fall Meeting. The Society's 48th Annual Fall Meeting, which included a 187-paper technical program and a 153-booth exhibits display, attracted 4,658 registrants.

The Society also conducted 9 regional meetings during 1973, with combined attendance at these meetings reaching 2,411. A summary of

HEADQUARTERS STAFF

The Society's Headquarters staff consisted of the following persons as of December 31, 1973:

David L. Riley, Executive Director Corky Barth, Secretary

Dan K. Adamson, General Manager Glenda Snow, Secretary

Richard C. Vilven, Manager-Administrative Services
Joan Fargarson, Senior Bookkeeper
Betty Lyons, Junior Bookkeeper
Cindy Poole, Membership Secretary
Dee Brint, Data Supervisor
Veronica Massengale, Receptionist-Order Clerk
M. C. Sirles, Mail Clerk, Printer

Douglas L. Ducate, Manager-Meetings, Assistant General Manager
Don Starcke, Exhibits Sales Manager
Jack Cozier, Advertising Sales Manager
Karen Lee, Meetings Secretary
Cathy Jones, Advertising and Exhibits Secretary

Tom Sullivan, Manager-Technical Services, Editor
Sally Wiley, Associate Editor
John C. Rash, Assistant Editor
Ann Gibson, Production Manager
Georgeann Bilich, Special Publications Supervisor
Barbara Dray, Programming Secretary
Becky Baker, Publications Secretary

Sherry Anderson, Manager-Communications and Public Relations Frances Deuser, Communications Secretary

Respectfully submitted,

Caid J. Riley

David L. Riley Executive Director

REPORT

of the

WAAIME

During the year it was the privilege of the President of WAAIME to visit sixteen Sections. The accomplishments by the Sections and all of the other WAAIME Sections is to be commended A tremendous number of hours are spent to interest young people in the earth sciences, to locate and interview young men and women in need of financial aid to continue their studies in the earth sciences, after the scholarship has been granted to keep in contact with the students during their schooling and after graduation, to aid in areas of disaster and need, to contribute books and magazines to libraries, and to raise funds to support these numerous endeavors.

Thirty-eight--or about 84%-- of the WAAIME Sections pursue some type of Engineers for Tomorrow program. Science Fair participation continues to be the most often used EFT medium. However, distribution of the Curiosity Kits (one for Metals and one for Minerals), as well as some kits made up by the Sections for their own use, still proves to be a popular and effective way for the EFT workers to make contacts with the schools--often not an easy task. Films, speakers, field trips and career guidance literature are also used by many Sections to further interest in the minerals and petroleum engineering fields. The National Engineers for Tomorrow Committee, with the help of the local committees, has put together a reference guide of facts and suggestions to be distributed to the Sections.

The Scholarship Loan Fund Committee processed and granted fortynine scholarships in May 1973, totaling \$67,450.00. Forty students who were attending school on WAAIME scholarships graduated in 1972.

The National Chest Committee donated \$500.00 to the Miner's Memorial Education Fund which was set up in 1972 to aid in educating the children of the miners who lost their lives in the Sunshine disaster. \$200.00 was contributed to survivors of the Hecle Mining Company disaster in Casa Grande, Arizona. Sections continue their wide and varied philanthropic projects.

The National Library Committee reports that the Sections continued their large variety of projects. Hundreds of dollars were raised in many interesting ways to pay for new books and thousands of pieces of reading materials were collected and sent to schools, colleges and universities, to hospitals, state and local, to clinics, orphanages, childrens' hospitals and to the deaf and blind. Many donations were sent to school and public libraries. Four Sections sent books to Prudhoe Bay, Alaska. Collections of books with historical value and accounts of

personal experiences pertaining to mining were unearthed and added to museums. One group spent many hours cataloging for a mining museum. Credits of \$50.00 each for books were given to five elementary schools by one group and another sent film strips and records. One Section supplied over 3400 books, paper backs and magazines to hospitals for members of the Military and Veterans Administrations and another sent books to a large Marine Hospital. One group arranged to take charge of a book cart in a hospital on a permanent basis. A large Section gave new books on mining and minerals to twelve schools. During the past seven years this group has sent new books to sixty-seven schools with special attention paid to schools outside the city limits.

WAAIME Endowment Funds report that one new named Fund was added to the WAAIME portfolio in 1973. The Fred A. Scheck Memorial was established because of the numerous contributions received in Mr. Scheck's memory from his many friends and associates it seemed proper to create a named Fund in his honor. With the approval of Mrs. Scheck, a member of WAAIME since January 1964, this Fund was established in October 1973. Mr. Scheck was associated with Newmont Mining Corporation from 1932 until his retirement in 1970. He was active in Newmont subsidiaries and affiliates both in the United States and South Africa. All contributions sent to the Flower Memorial Fund in memory of Mr. Scheck will be transferred to this Fund at the end of the year. This Fund brings the total of our named Funds to thirty-seven. Thirty-four Scholarship Loan Funds, two Administrative Funds and one Chest Fund. During 1973 generous contributions were received from Sections, members and friends to be added to the principle of several other of our named Endowed Funds.

Sincerely,

Mrs. G. Robert Couch