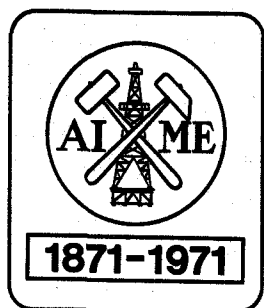


# 1971

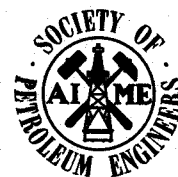
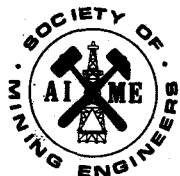
## OFFICIAL ANNUAL REVIEW



# AIME

and its

THREE CONSTITUENT SOCIETIES



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

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OFFICIAL AIME ANNUAL REVIEW

Table of Contents

<u>REPORT</u>	<u>PAGE</u>
Executive Director.....	1
Honors and Awards.....	2
Comptroller.....	4
Revenue & Expense - 1972 Budget - 1971 Actual.....	5
Balance Sheet November 30, 1970 and 1971.....	8
Membership Data 1870-1971.....	9
Membership Statistics January 1, 1971.....	10
Classification of Members.....	12
Meetings Department.....	13
Communications Department.....	17
Section Affairs Department.....	18
Western Field Secretary.....	20
Society of Mining Engineers of AIME.....	24
The Metallurgical Society of AIME.....	42
Society of Petroleum Engineers of AIME.....	55
WAAIME.....	63

## REPORT OF THE EXECUTIVE DIRECTOR, AIME

1971

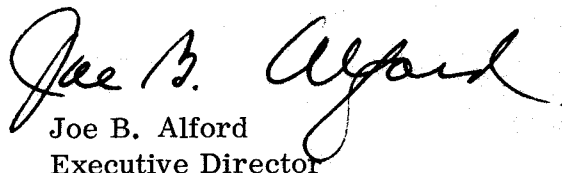
The most outstanding aspect of 1971 was that it has been the Centennial year for the Institute. The Centennial Celebration and 100th Annual Meeting of AIME, held in New York, February 28-March 4, was the culmination of several years of planning by many persons. It was a very successful event, with some 3,500 persons in attendance representing many countries of the world.

During 1971, the Institute experienced severe financial constraints because member dues have not been raised since 1950, and all aspects of AIME and Constituent Society operations have been affected. Because of this problem, intensive analysis and study of the internal activities and operations of the Institute and its Societies have been conducted throughout the year by numerous officers and staff members. The basic purpose has been to find an equitable means of financing the AIME Headquarters and other all-Institute expense and the operations of the three Constituent Societies. The financial needs of the three Constituent Societies differ considerably. The studies have resulted in the development of a new approach to financing of all operations which is being recommended to the AIME Board of Directors at the 1972 Annual Meeting in San Francisco. I believe that if these recommendations are adopted, they will provide some basic solutions to the financial problems experienced by the Institute in recent years.

AIME is indebted to President John S. Bell for his unusual service during 1971. During the year he travelled extensively and spent a very substantial amount of his time on Institute business in many ways. Mrs. Bell accompanied him in the attendance at numerous Society and Section meetings. The Institute is indebted to Mr. and Mrs. Bell for their contributions.

I wish to express appreciation to all officers and staffs of the Institute and the three Constituent Societies for their dedicated efforts during the year to help the Institute to maintain its fine record of service established during the past century.

Respectfully submitted,



Joe B. Alford  
Executive Director

RECORD OF HONORS AND AWARDS PRESENTED BY AIME IN 1971

The following Honors and Awards were presented by AIME in 1971, in addition to those presented by our Constituent Societies and described elsewhere in this Annual Review:

HONORARY MEMBERSHIP was conferred upon Jan J. Arps, "In recognition of his lasting contributions to the petroleum engineering profession, particularly in the improvement of the science of mineral economics and in the development of continuous well logging methods, and of his many years of service to the Institute."

HONORARY MEMBERSHIP was conferred upon Thomas C. Frick, "For his unselfish contributions of time and service to the Institute on both the local and national level and for his outstanding abilities as an educator and an administrator in the petroleum industry."

HONORARY MEMBERSHIP was conferred upon Clyde Williams, "For his distinguished achievements as scientist and administrator of scientific research and in appreciation of his outstanding service to the Institute and to the nation."

The JAMES DOUGLAS GOLD MEDAL to Bruce W. Gonser, "For many stimulating and valuable contributions to the 'thinking' of metallurgists as well as to the 'doing' of extractive metallurgy."

The ENGINEERING ACHIEVEMENT AWARD to Robert F. Bauer, "In recognition of his imaginative direction of deep sea drilling projects which have led to new concepts of continental drift and mineral deposition."

The BENJAMIN F. FAIRLESS AWARD to Frederick G. Jaicks, "In recognition of his distinguished management of a modern steel manufacturing complex and for his bold leadership in advocating the social responsibilities of industry."

The HAL WILLIAMS HARDINGE AWARD to John E. Lamar, "For creatively conducting and directing basic and applied research directed to enhancing the utilization and development of industrial minerals, especially those native to the State of Illinois."

The ANTHONY F. LUCAS GOLD MEDAL to M. King Hubbert, "His efforts in establishing the fundamental concepts of flow through porous media greatly speeded the transition of petroleum engineering from an art into a science."

The ERSKINE RAMSAY MEDAL to Jesse F. Core, "For his contribution to the general improvement of good coal mining practices, particularly in the development of mining personnel."

The CHARLES F. RAND GOLD MEDAL to Arthur F. Peterson, "For many innovations in iron ore mining, and particularly, for distinguished leadership in the development of the iron ore pellet as a blast furnace burden."

The ROBERT H. RICHARDS AWARD to H. Rush Spedden, "In recognition of his many contributions to the mineral processing profession in research, research administration and teaching."

The ENVIRONMENTAL CONSERVATION DISTINGUISHED SERVICE AWARD to Clare A. Young, "In appreciation of a lifetime of steadfast dedication to environmental conservation and in recognition of the successful transformation of mining badlands into fertile farmlands."

The MINERAL ECONOMICS AWARD to Albert J. F. Blondel and Samuel G. Lasky (both posthumously), "In recognition of their many contributions, both individual and joint, that spanned forty years and two continents and that, by seeking out the middle ground between the physical and social sciences, did so much to define the field of mineral economics."

The MINERAL INDUSTRY EDUCATION AWARD to Nathaniel Arbiter, "For his dedication to education and his profession through his unfailing interest in students, for his zeal for knowledge through research and valuable contributions to the technical literature."

The ROCK MECHANICS AWARD to Leopold Müller, "For his pioneering and renowned contributions to rock mechanics, especially its application to civil work throughout the world."

The ROSSITER W. RAYMOND MEMORIAL AWARD to Ben A. Eaton for his paper, "Fracture Gradient Prediction and Its Application In Oilfield Operations".

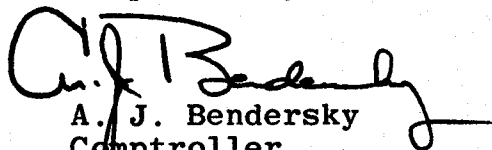
LEGION OF HONOR FIFTY-YEAR MEMBER INSIGNIA were conferred upon the following fifty-six members: John H. Alden, Russell H. Bennett, Stanley Blose, Emerson I. Brown, Philip L. Carter, Edward P. Chapman, Harry C. Chellson, John L. Christie, Benjamin F. Clark, Jr., Douglas M. Collingwood, Herbert M. Cox, Albert B. Craig, George M. Darby, Edmond S. Davenport, Harry T. Davis, Andrew Devereux, Lewis W. Douglas, William Dunn, Florin W. Floyd, Claude Y. Garber, Antoine M. Gaudin, James C. Gilbert, Bernard E. Golson, Wesley P. Goss, Justin B. Gowen, W. Louis Harbrecht, William G. Heberling, George O. Hiers, Ovid B. Hundley, Frederick C. Jaccard, T. D. Jones, Clifton M. Keeler, Frank P. Knight, Robert Lepsoe, Alexander G. Mackenzie, Walter S. March, Jr., Howard A. Meyerhoff, Fred S. Mulock, Theodore Nagel, Fred M. Nelson, John B. Newsom, John Furness Park, Benjamin E. Parsons, Ethbert F. Reed, James H. Robins, Howard S. Robinson, Edward G. Ross, Clarence P. Salmon, John P. Savage, Richard W. Smith, Daniel M. Stranahan, Jerome Strauss, Landon F. Strobel, James S. Vanick, William J. Walker, Samuel H. Williston.

REPORT  
of the  
COMPTROLLER

The year 1971 was one of stability and efficiency. Refinements in various programs started in 1969 were completed and results were significant in effective utilization of the total resources of AIME.

The Administrative Services Department must be commended for their efficient handling of the arduous details and for their loyal and devoted service during the year.

Respectfully submitted,

  
A. J. Bendersky  
Comptroller

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

February 7, 1972

SUMMARY OF REVENUE AND EXPENSE ESTIMATES FOR FISCAL YEAR 1972

AND ACTUALS FOR FISCAL YEAR 1971

Description	Actual FY 1971	Budget FY 1972
<b>REVENUE:</b>		
Members Dues and Fees	\$ 858,214	\$ 887,600
Publications	898,727	917,200
Meetings	652,383	582,701
AIME Endowment Funds	122,263	99,900
Interest and Dividends	37,074	30,300
Mining & Metallurgical Society of America	6,530	-0-
SPE-AIME Special Programs	17,138	20,400
<b>TOTAL REVENUE</b>	<b>\$2,592,329</b>	<b>\$2,538,101</b>
<b>EXPENSES</b>		
AIME Corporate Headquarters	\$ 154,382	\$ 165,000
AIME Consolidated Business Office	192,908	235,394
Western Field Office	29,519	32,000
Constituent Society Headquarters	396,608	390,365
Membership Development	33,087	47,542
Section & Student Chapter Rebates	58,060	62,000
Federations	48,614	51,082
Pensions & Related	110,893	122,323
Contingency for Capital Purchases	1,272	1,200
Other All-Institute	40,108	37,525
SPE-AIME Special Programs	39,455	33,850
Publications	1,188,684	1,148,090
Meetings	361,839	309,512
<b>TOTAL EXPENSE</b>	<b>\$2,655,429</b>	<b>\$2,635,883</b>
<b>ESTIMATED REVENUE OVER EXPENSE (deficit)</b>	<b>★ \$(63,100)</b>	<b>\$(97,782)</b>

★ Does not include FY 1971 one-time expense of \$71,393 for the write-off of the Furniture and Fixtures Account. This write-off increased the overall deficit to \$134,493. It increased the deficit of SME-AIME from \$69,501 to \$84,689; the deficit of TMS-AIME from \$80,466 to \$96,448; and decreased the excess of SPE-AIME from \$83,074 to \$42,851.

AIME CONSOLIDATED FISCAL YEAR 1971  
REVENUE AND EXPENSE STATEMENT  
ALL ACTIVITIES RECAP

6

Description	Headquarters AIME	SME-AIME	TMS-AIME	SPE-AIME	TOTAL
<b>REVENUE:</b>					
Members Dues and Fees	\$ -0-	\$ 315,166	\$ 200,650	\$ 342,398	\$ 858,214
Publications	-0-	410,852	100,519	387,356	898,727
Meetings	212,170	41,409	70,537	328,267	652,383
AIME Endowment Funds	116,489	2,887	2,887	-0-	122,263
Interest and Dividends	-0-	14,623	7,678	14,773	37,074
Mining & Metallurgical Society of America	6,530	-0-	-0-	-0-	6,530
SPE-AIME Special Programs	-0-	-0-	-0-	17,138	17,138
<b>TOTAL REVENUE</b>	<b>\$ 335,189</b>	<b>\$ 784,937</b>	<b>\$ 382,271</b>	<b>\$1,089,932</b>	<b>\$ 2,592,329</b>
<b>EXPENSES</b>					
AIME Corporate Headquarters	\$ 60,482	\$ 32,431	\$ 26,050	\$ 35,419	\$ 154,382
AIME Consolidated Business Office	25,858	55,116	54,460	57,474	192,908
Western Field Office	6,019	19,787	3,713	-0-	29,519
Constituent Society Headquarters	-0-	78,849	150,138	167,621	396,608
Membership Development	-0-	10,870	4,385	17,832	33,087
Section & Student Chapter Rebates	-0-	21,719	10,562	25,779	58,060
Federations	11,228	13,155	9,545	14,686	48,614
Pensions & Related	-0-	38,163	28,946	43,784	110,893
Contingency for Capital Purchases	-0-	1,083	189	-0-	1,272
Other All-Institute	-0-	14,198	10,789	15,121	40,108
SPE-AIME Special Programs	-0-	-0-	-0-	39,455	39,455
Publications	-0-	534,843	163,960	489,881	1,188,684
Meetings	227,809	34,224	-0-	99,806	361,839
<b>TOTAL EXPENSE</b>	<b>\$ 331,396</b>	<b>\$ 854,438</b>	<b>\$ 462,737</b>	<b>\$1,006,858</b>	<b>\$ 2,655,429</b>
<b>ESTIMATED REVENUE OVER EXPENSE (deficit)</b>	<b>\$ 3,793</b>	<b>\$ (69,501)</b>	<b>\$ (80,466)</b>	<b>\$ 83,074</b>	<b>\$ (63,100)</b>
Deficits ( Society Activities Fund	-0-	69,501	26,966	-0-	96,467
Paid from ( Krumb Fund	-0-	-0-	53,500	-0-	53,500
	-0-	\$ 69,501	\$ 80,466		\$ 149,967



# AIME CONSOLIDATED FISCAL YEAR 1972 BUDGET

January 25, 1972

## All Activities Recap

Description	Headquarters AIME	SME-AIME	TMS-AIME	SPE-AIME	Total To Summary
<b>REVENUE:</b>					
Members Dues and Fees	\$ -0-	\$331,100	\$205,000	\$351,500	\$887,600
Publications	-0-	419,000	138,000	360,200	917,200
Meetings	74,539	101,167	94,935	312,060	582,701
AIME Endowment Funds	93,900	3,000	3,000	-0-	99,900
Interest and Dividends	-0-	9,400	7,500	13,400	30,300
Mining & Metallurgical Society of America	-0-	-0-	-0-	-0-	-0-
SPE-AIME Special Programs	-0-	-0-	-0-	20,400	20,400
<b>TOTAL REVENUE</b>	\$168,439	\$863,667	\$448,435	\$1,057,560	\$2,538,101

\*Misc: \* 9,900  
\$873,567

<b>EXPENSES</b>					
AIME Corporate Headquarters	\$ 71,500	\$ 33,137	\$ 25,151	\$ 35,212	\$165,000
AIME Consolidated Business Office	7,800	75,106	74,195	78,293	235,394
Western Field Office	8,000	20,208	3,792	-0-	32,000
Constituent Society Headquarters	-0-	* 76,665	165,600	158,000	* 390,365
Membership Development	-0-	20,192	7,850	19,500	47,542
Section & Student Chapter Rebates	-0-	23,500	12,000	26,500	62,000
Federations	11,600	14,367	9,647	15,468	51,082
Pensions & Related	-0-	44,686	28,783	48,854	122,323
Contingency for Capital Purchases	-0-	-0-	1,200	-0-	1,200
Other All-Institute	-0-	13,299	10,094	14,132	37,525
SPE-AIME Special Programs	-0-	-0-	-0-	33,850	33,850
Publications	-0-	477,790	204,000	466,300	1,148,090
Meetings	74,593	90,167	14,192	130,560	309,512
<b>TOTAL EXPENSE</b>	\$173,493	* \$889,117	\$556,504	\$1,026,669	* \$2,635,883

<b>ESTIMATED REVENUE OVER EXPENSE (deficit)</b>	\$ (5,054)	\$ (15,550)	\$ (108,069)	\$30,891	\$ (97,782)
Deficits	5,054	-0-	-0-	-0-	5,054
To Be Paid	-0-	11,000	15,000	-0-	26,000
From	-0-	4,550	41,069	-0-	45,619
Krumb Fund	-0-	-0-	52,000	-0-	52,000
	\$5,054	\$15,550	\$108,069	-0-	\$128,673

\* \$9,900 is estimate of reimbursement to SME-AIME for management of AIME Annual Meeting & RETC--expense and revenue included in Meetings under AIME Headquarters and excluded from Society revenue & Society Hq. expense in summary.

REPORT OF THE TREASURERAMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS, INC.BALANCE SHEETNOVEMBER 30, 1971 AND NOVEMBER 30, 1970ASSETSWORKING FUND

	<u>NOVEMBER 30, 1971</u>	<u>NOVEMBER 30, 1970</u>
Cash, Principally in Interest bearing Deposits	\$ 30,863	\$ 53,665
Member Dues Receivable	15,505	7,045
Accounts Receivable	120,973	102,864

INVENTORIES

Publications on Hand	45,648	45,474
Postage, Stationary & Supplies	3,806	5,168
Equipment, Furniture & Fixtures	-0-	\$ 193,895
Less: Reserve for Depreciation	-0-	(77,698)
Prepaid Expenses, Deferred charges	135,855	116,197
TOTAL WORKING FUND	\$ 352,650	\$ 450,647

ENDOWMENT & CUSTODIAN FUNDS

Investment at Cost	\$ 4,222,941	\$ 4,102,736
Investment-Short Term	300,000 4,522,941	398,665 4,501,401

PROPERTY FUND

Founder's Interest in Real Estate and Other Assets of United Engineering Trustees	265,000	265,000
TOTAL ASSETS	\$ 5,140,591	\$ 5,217,048

LIABILITIES AND RESERVESWORKING FUND

Accounts Payable, General	\$ 30,559	\$ 69,885
Life Membership Fund	11,780	14,420
Annual Meeting Surplus	15,058	10,226
Deferred Income from Member Dues	\$ 361,032	\$ 273,948
Other Deferred Credits	95,577 456,609	108,040 381,988
Surplus - Beginning year	\$ 29,628	\$ 29,628
Unexpended Income	-0-	44,804
Amounts transferred from Funds	(202,398) (172,770)	(98,147) (23,715)
TOTAL WORKING FUND	\$ 341,236	\$ 452,804

ENDOWMENT & CUSTODIAN FUNDS

Endowment Funds	\$ 3,976,268	\$ 3,838,051
Custodian Funds	558,087 4,534,355	661,193 4,499,244

PROPERTY FUND

AIME Portion of Contribution from Andrew Carnegie and Others	265,000	265,000
TOTAL LIABILITIES & RESERVE	\$ 5,140,591	\$ 5,217,048

## MEMBERSHIP DATA

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

1870 to 1971

YEAR	MEMBER TOTAL	YEAR	MEMBER TOTAL	YEAR	MEMBER TOTAL	YEAR	MEMBER TOTAL	YEAR	MEMBER TOTAL
1870 ---	22	1880 ---	832	1890 ---	2,000	1900 ---	2,450	1910 ---	4,210
1	157	1	1,031	1	2,134	1	2,897	1	4,169
2	254	2	1,213	2	2,258	2	3,262	2	4,290
3	273	3	1,345	3	2,392	3	3,741	3	4,284
4	345	4	1,467	4	2,391	4	3,530	4	4,150
1875 ---	554	1885 ---	1,439	1895 ---	2,437	1905 ---	3,886	1915 ---	4,650
6	628	6	1,504	6	2,390	6	4,048	6	5,880
7	732	7	1,615	7	2,455	7	4,191	7	6,597
8	734	8	1,714	8	2,562	8	4,241	8	7,856
9	788	9	1,857	9	2,564	9	4,284	9	8,426

YEAR	CORPORATE MEMBERS	STUDENT MEMBERS	GRAND TOTAL	YEAR	CORPORATE MEMBERS	STUDENT MEMBERS	GRAND 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
4	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	628	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	29,713
7	8,279	2,147	10,426	7	28,823	3,974	32,797
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 ---	34,852	1,893	36,745
1	34,368	1,633	36,001
2	34,437	1,857	36,294
3	34,838	2,289	37,127
4	35,740	2,370	38,110
1965 ---	36,878	2,561	39,439
6	38,912	2,706	41,618
7	40,278	3,183	43,461
8	42,015	3,437	45,488
9	43,300	3,438	46,738
1970 ---	43,095	3,863	46,958
1	44,627	3,962	48,589

AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS, INC.  
MEMBERSHIP STATISTICS January 1, 1972

NO.	SECTION	SOCIETY OF MINING ENGINEERS OF AIME						THE METALLURGICAL SOCIETY OF AIME						SOCIETY OF PETROLEUM ENGINEERS OF AIME										GRAND TOTAL	NO.										
		Min. & Explor. A	M. B. D. B	Coal F	Ind. Min. H	Educ. J	Econ. K	Un-class	Total	Iron & Steel C	Extr. Met. D	Inst. of Met. E	Educ. J	Econ. K	Un-class	Total	Drilling & Well Complet. N	Educ. & Prof. O	Econ. & Eval. P	Form-Eval. R	Gas Tech. S	Geol. Eng. T	Management U			Prod. Oper. V	Reservoir Eng. W	Fl. Mech. & Oil Rec. Proc. X	OP & TECH Y	Educ. J	Econ. K	Un-class	Total		
000	OUT OF SECTION	1,116	358	68	69	12	42	483	2,148	426	367	372	3	6	137	1,311	169	12	54	30	23	31	108	130	223	27	8	1	1	474	1,290	4,749	000		
1	ALASKA	17	3	1	1	1	1	21	44	14	76	26	1	2	23	142	3		2	2			4	4	1				2	2	47	1	47		
2	ARIZONA	798	189	8	19	16	13	220	1,263	14	76	26	1	2	23	142	3		2	2			4	4	4				11	26	1,431	2	1,431		
3	BLACK HILLS	41	11	1	6	1	2	20	81	32	34	208	3	2	41	320	1	1	3		2	3	1	2	1	3	1		7	8	95	3	95		
4	BOSTON	57	17	10	9	1	2	21	117	32	34	208	3	2	41	320	1		3										10	28	465	4	465		
5	CARLSBAD POTASH	28	11	1	7	1	1	3	51						1		1												2	3	55	5	55		
6	CENTRAL APALACHIAN	59	8	256	20	1	3	85	432	15	4	22	2	4	14	57	1		1								1		2	491	6	491			
7	CHICAGO	101	52	74	27	1	3	37	295	475	35	226	1	4	93	834			1					1	1				1	4	1,133	7	1,133		
8	CLEVELAND	47	28	10	7	1	2	21	181	26	159	181	1		47	444	2		1										1	1	626	8	626		
9	COLORADO	513	168	33	27	4	14	175	934	20	26	42	1		34	122	2		1					1	1				3	8	1,064	9	1,064		
10	COLUMBIA	197	26	1	5	4	6	62	301	2	18	45	1		7	33													3	3	334	10	334		
11	CONNECTICUT	17	7	2	4	1		10	41	30	25	176		3	24	258													3	3	302	11	302		
12	DELTA	15	4	4	4			7	30	3	8	3	3		3	17	199	5	19	22	18	7	103	147	93	10			352	1,003	1,050	12	1,050		
13	DETROIT	33	14	5	11	33	1	26	90	129	13	181	1		51	375	54	1	7	3	2	3	21	3	15	4	1		60	222	247	13	247		
14	EAST TEXAS	8	4	14	1	1		2	15	10	10	10			15	64	2		2		2	2	2	2	2	12	1		15	38	190	15	190		
15	EL PASO	49	16		2	2		19	88	2	30	16	1		15	10	1		2										12	2	12	2	12		
16	GULF COAST	6	1	2	1			5	15	1	1	2			1	4	422	13	109	108	53	28	255	318	245	74	34		942	2,601	2,620	16	2,620		
17	WICHITA PETROLEUM	6	3	4	1	1		5	20	2	2	7			1	10	23	2	5	3	3	2	13	16	12	5	1		46	132	162	17	162		
18	LEHIGH VALLEY	62	42	19	17		2	23	165	62	26	77	1		23	189	86	4	48	13	14	13	77	136	61	43	4		288	787	788	18	788		
19	MID CONTINENT	270	180	5	7	2	10	100	574	18	9	20	1		20	68	4		1			1							2	2	5	14	656	20	656
20	MINNESOTA	112	10	2	8	1		59	192	42	2	6	1		10	59													2	2	253	21	253		
21	MONTANA	112	10	2	8	1		59	192	42	2	6	1		10	59													2	2	253	21	253		
22	NORTHERN NEVADA	22	178	25	8	1	2	36	250	148	216	437	3	31	130	965	36		1			1	2	28	9				6	10	2,044	23	2,044		
23	NEW YORK	527	178	30	68	8	89	169	1,069	148	216	437	3	31	130	965	36		1										68	166	169	24	169		
24	NORTH TEXAS	1																																	
25	NORTH PACIFIC	189	29	7	9	2	3	79	318	10	36	57		2	27	132	2												16	25	473	25	473		
26	OHIO VALLEY	42	16	35	16		3	28	140	118	18	184		2	41	363	2		32	12	8	9	58	113	46	8	3		193	581	583	27	583		
27	OKLAHOMA CITY	62	9		10	2	2	22	107	8	29	27			15	79	97	2											3	4	190	28	190		
28	OREGON	29	39	5	5		1	173	3	6	10	10			2	18	1						1	1	1				2	2	195	29	195		
29	PENN ANTHRACITE	11		1				6	21	2	2	1			3	6	133	2	34	16	10	13	78	196	104	25	1		328	940	967	30	967		
30	PERMIAN BASIN	65	40	22	27	2	1	29	166	168	21	153	2		37	381	4												20	46	813	31	813		
31	PHILADELPHIA	133	65	300	19	4	7	155	683	672	93	374		5	134	1,278	3												6	11	1,972	32	1,972		
32	PITTSBURGH	180	40	75	22	6	4	72	379	65	58	71	1	2	28	225													1	1	3	607	33	607	
33	ST. LOUIS	438	247	9	41	2	21	130	888	2	2	5			7	16													1	1	4	908	34	908	
34	SAN FRANCISCO	78	16	117	10	78	3	30	10	39	14	17			13	83	4					2	1						7	14	351	35	351		
35	ALABAMA	256	64	6	53	1	11	94	485	56	34	187			32	309													2	2	796	36	796		
36	SO. CALIFORNIA	256	64	6	53	1	11	94	485	56	34	187			32	309													2	2	796	36			

AMERICAN INSTITUTE OF MINING, METALLURGICAL, AND PETROLEUM ENGINEERS, INC.  
MEMBERSHIP STATISTICS January 1, 1972

NO.	SECTION	SOCIETY OF MINING ENGINEERS OF AIME										THE METALLURGICAL SOCIETY OF AIME										SOCIETY OF PETROLEUM ENGINEERS OF AIME										GRAND TOTAL	NO.			
		Min. & Export. A	M.B.D. B	Coal F	Ind. Min. H	Educ. J	Econ. K	Un-class	Total	Iron & Steel C	Ext. Met. D	Inst. of Met. E	Educ. J	Econ. K	Un-class	Total	Drilling & Well Complet. N	Educ. & Prof. O	Econ. & Eval. P	Form-Eval. R	Gas Tech. S	Geol. Eng. T	Management U	Prod. Oper. V	Reservoir Eng. W	Fl. Mech. & Oil Rec. Proc. X	OP & TECH Y	Educ. J	Econ. K	Un-class	Total					
66	BILLINGS PETROLEUM							3	3								16	2	1	3			5	3	10	8						30	79	66		
67	NEW YORK PETROLEUM																23	3	4	11			6	52	19	22						152	345	67		
68	ILLINOIS BASIN PETROLEUM																27	1	4	4			7	16	35	17						77	201	68		
69	LOS ANGELES BASIN																135	2	43	23			97	112	87							322	914	69		
70	E. VENEZUELA PETROLEUM	12	1		1			2	15			1					3	3	1	1			3	43	84	33						6	19	36	70	
71	EVANGELINE	4			5				11								164	6	6	14			6	43	84	33						187	559	71		
72	W. VENEZUELA PETROLEUM	1	1		1				3								24		9	4			11	11	20	17						43	129	72		
73	GREAT BEND	1							1										1	4			3	10	26							10	78	73		
74	UPPER MISSISSIPPI VALLEY	19	1		1				28																									4	4	74
75	SOUTH EASTERN UTAH	27	6		3			7	43																										34	75
76	CARACAS PETROLEUM	13	2		2				25								10	1	8	4			11	6	8	22						38	105	76		
77	FOUR CORNERS PETROLEUM																14	2	5				14	6	6	16						31	182	77		
78	CALIFORNIA COASTAL	1							1								37	2					4		33	16						53	183	78		
79																																			79	
80	SNYDER	1			1				2								10		2				6		10							15	44	46	80	
81																																			81	
82	WYOMING MIN & MTLIS																																		82	
83	BALCONES	102	8	6	8	1		1	153			2	2				18	2	10	5			8	8	28	11						65	157	83		
84																																			84	
85	HUDSON-MOHAWK	18	6	2	5			6	41			111	1																					9	158	85
86	WILLISTON BASIN																13	1	1				4	9	9	2						15	48	86		
87	SAUDI ARABIA	1															6		1	1			2	6	6	7						26	56	87		
88	APPALACHIAN PETROLEUM																35		3				9	5	5	8						32	98	88		
89	NORTHERN OKLAHOMA																9	1		7			3	11	11	4						24	75	89		
90	UTAH COAL	1	2	21				7	31																									32	90	
91	NORTH W. VIRGINIA																																		91	
92	CAROLINAS	51	29	5	26	2		30	145			30					20	1	2				7	2	2							10	57	92		
93	WISCONSIN	45	47	3	3	1		15	116			47					1						2	1	1							8	13	93		
94	NETHERLANDS	9	2		5			2	13			8	5				23		2				3									33	116	94		
95	EAST TENNESSEE	82	12	12	6			25	137			15	42	1																			3	3	95	
96	COASTAL BEND																42																	129	130	96
97	VIRGINIA	20	6	10	2			8	46			9	31	1			1	1					6	1	4							3	6	101	97	
98																																			98	
99	TEXAS COAST MIN-MET	122	17	2	20			5	203			20	38	1			4	4					2	2	2							7	17	323	99	
100	UNITAH BASIN																																		100	
101	NORTHERN PLAINS	1			1				2								14	1	1	3			5	5	12	1						10	48	101		
102	BARTLESVILLE																3	3	4	1			5	5	3	14						14	59	82	102	
103	EAST KENTUCKY																15	1	4				2	2	17							26	92	93		
104	BIG HORN BASIN	1		2					2								17		2	5			12	18	4							11	40	94		
105	OHIO PETROLEUM		1						1								36	1	2	3			11	16	18							12	79	95		
106	CHICAGO PETROLEUM	1																																	106	
107	AMARILLO	2	1		1				4			6					11	22	2				6	6	4							4	87	70	107	
108	TRANS PECOS PETROL.	1							1			7					14	14	7				7	7	14	4						16	64	108		
109	MIDWEST GAS STORAGE	1							2																											

CLASSIFICATION OF MEMBERS

	<u>AIME - 3 YEAR TALLY</u>			<u>SOCIETIES - 1971</u>		
	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>SME</u>	<u>TMS</u>	<u>SPE</u>
Honorary Members	18	21	31	10	9	12
Members	28,498	28,948	29,867	11,333	6,661	11,873
Associates	6,421	7,342	7,640	2,840	1,893	2,907
Juniors	6,615	6,784	7,089	2,488	1,819	2,782
Total	41,552	43,095	44,627	16,671	10,382	17,574
Student Members	4,790	3,863	3,962	1,170	2,039	753
GRAND TOTAL	46,342	46,958	48,589	17,841	12,421	18,327

MEMBERSHIP LOSSES 1971

	<u>SME</u>	<u>TMS</u>	<u>SPE</u>	<u>AIME</u>
Deaths	125	51	47	223
Resignations	177	264	158	599
Drops	500	707	788	1,995
Unaccepted	74	59	111	244
	876	1,081	1,104	3,061

DISTRIBUTION OF MEMBERS IN SOCIETIES  
DURING LAST DECADE AS APPROXIMATE PERCENTAGE

<u>December</u>	<u>Mining</u> <u>Members</u> <u>%</u>	<u>Metallur-</u> <u>gical</u> <u>Members</u> <u>%</u>	<u>Petroleum</u> <u>Members</u> <u>%</u>
1959	36.0	23.5	40.5
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

CLASSIFICATION OF APPLICATIONS RECEIVED AND  
ELECTIONS MADE BY THE ADMISSIONS COMMITTEE

<u>New Applications &amp; Reinstatements</u>	<u>1970</u>	<u>1971</u>	<u>Mining</u>	<u>Metall.</u>	<u>Petroleum</u>
Members	1,522	1,503	708	293	502
Associates	621	618	284	73	261
Juniors	852	746	210	197	339
TOTAL	2,995	2,867	1,202	563	1,102
<u>Applications for Change of Status</u>					
Associate to Member	636	525	141	124	260
Junior to Member	57	36	20	10	6
Junior to Associate	1	1	1	-	-
Student to Member	4	4	3	-	1
Student to Associate	1	-	-	-	-
Student to Junior	3	3	2	-	1
Junior to Student	1	-	-	-	-
Junior to Joint Student	-	-	-	-	-
Student to Joint Student	-	-	-	-	-
Joint Student to Student	-	-	-	-	-
	703	569	167	134	268
<u>Applications for Student Members</u>	<u>1,131</u>	<u>1,393</u>	<u>904</u>	<u>94</u>	<u>395</u>
GRAND TOTAL	4,829	4,829	2,273	791	1,765

Automatic Change of Status are not included due to the fact that applications are not necessary.

REPORT  
of the  
MEETINGS DEPARTMENT

General

The AIME Meetings Department experienced a year of many changes brought about by the transfer of "member service" related functions from the Institute Headquarters to the Societies. Under the new organization, the Meetings Department will administer only the AIME Annual Meeting, reporting directly to the AIME Executive Director, and conduct liaison with other professional societies with whom AIME conducts joint meetings.

Personnel

Mr. Alexander Scott continues to hold the position of Meetings Manager as well as serving as Conference Manager for the Rapid Excavation and Tunneling Conference. Effective December 1, 1971, Mr. Scott assumed the position of Assistant Executive Secretary of the Society of Mining Engineers of AIME.

In keeping with the cut-back in Institute member service, Miss Christina Liberta, Administrative Assistant for Meetings, resigned in August, 1971. Temporary secretarial support has been utilized since then to allow the Meetings Department to function at the Institute Headquarters level.

Centennial Celebration and 100th Annual Meeting

The year 1971 marked the 100th Anniversary of AIME and it was appropriately recognized by the special Centennial Celebration, a three-day event preceding the 100th Annual Meeting, February 26-March 3, 1971.

Attendance figures were as follows:	AIME	-	3,068
	WAAIME	-	626
	Students	-	207
	TOTAL	-	3,901

Guest Rooms Utilized: 2,296

Financial Statement:

REVENUE

Mtg. Reg.	\$114,646.00
Solicitation	49,000.00
Social Functions	90,467.00
TOTAL REVENUE	\$254,113.00

EXPENSES

Cent. Vol. & History	\$26,036.57
Meeting	74,866.94
AIME Hdq., Societies,	
Host Sections, Guests	54,844.06
Social Functions	86,351.87
TOTAL EXPENSES	\$242,099.44

Revenue over Expenses: \$12,013.56

Representatives from Australia, Belgium, Canada, Republic of China, France, Germany, Japan, Mexico, People's Republic of Rumania, Republic of South Africa, Spain and the United Kingdom attended the Formal Greeting Session and the Institute received several gifts to commemorate the 100th Anniversary.

### 101st Annual Meeting

February 20-24, 1972 in San Francisco, California.

Organization of the Host Section Committees was begun in April, 1971 with advance planning of social functions, tours, etc., beginning during the summer months.

The Advance Mailer was mailed three weeks earlier (Nov. 7-10) than previous years to avoid complications with Christmas mail.

Pre-registration returns are currently being processed and indications point to a successful meeting from an attendance standpoint.

The Meetings Department has assumed responsibility for the public relations aspects of the meeting. The writing of news releases, Honors Booklet and promotional material was done by the Meetings Manager and temporary help.

A post-meeting tour of Hawaii has been arranged as well as two Short Courses prior to the meeting.

### Future Annual Meetings

Attempts are being made to refine site selection in consideration of attendance and budget factors.

Cities are being judged not only on the basis of meeting and guest room facilities, transportation, etc., but also on their ability to draw greater attendance and consequently reduce costs to the Institute.

Future Annual Meeting schedule:

1974 Dallas (selected)	1977 New Orleans (proposed)
1975 New York (selected)	1978 Denver (proposed)
1976 Las Vegas (proposed)	1979 New York (proposed)

### Special Technical Conferences

#### 1. Environmental Quality Conference (EQC)

The following are the statistics for the EQC:

#### Attendance:

228 Members	17 Authors
77 Non-members	4 Students
62 One Day Registrations	

Exhibits: 11 booths



TOTAL INCOME	\$26,176.00
TOTAL EXPENSE	42,992.68
<hr/>	
REVENUE	
SHORTAGE	\$16,816.68

Additional pre-prints are still being sold which should reduce the revenue shortage somewhat.

Several factors contributed to the failure of the EQC to attract a greater attendance: Timing of the Conference and competition from other environmental meetings.

## 2. Rapid Excavation and Tunneling Conference (RETC)

The first NARETC is scheduled for June 5-7, 1972 at the Palmer House, Chicago, Illinois.

Sponsors are AIME and the American Society of Civil Engineers (ASCE). Cooperating societies are the Canadian Institute of Mining and Metallurgy (CIM), and the Engineering Institute of Canada (EIC).

Mr. Alexander Scott, Meetings Manager of AIME was named Conference Manager responsible to the Executive Committee headed by Ellis Armstrong, Commissioner of Reclamation, Department of the Interior, Washington, D.C.

The Executive Committee held two meetings in 1971 to set policy and finalize the Memorandum of Agreement which was approved at their June 18, 1971 meeting.

The Program Committee headed by Larry Garfield (AIME) and Kenneth Lane (ASCE) met December 6, 1971 selecting over 80 papers within 18 Technical Sessions.

Some 20 Exhibits have been sold to date and we anticipate 30-40 companies to finally be represented.

Announcement Brochures, Exhibit Brochures and general press releases have been promoting the Conference since September, 1971. Some 250 or more individuals have requested to be placed on the Advance Registration Mailer to be sent in March, 1972.

In keeping with the transfer of "member service" from the Institute Headquarters, SME-AIME has assumed management of this Conference.

Based on a good prospectus for the 1972 Conference, tentative arrangements have been made to hold the next Conference in 1974 in San Francisco.

## Joint Conferences

Several topics on which to hold joint meetings have been under discussion by the five Founder Societies. Two specific proposals dealing with Environment and Transportation have been circulated to the respective Boards of Direction for approval and negotiations will continue throughout 1972.

If approved, AIME would co-sponsor these conferences beginning in 1973.

Summation

Greater efforts will be made to record and analyze meeting statistics so that AIME can better estimate the need for meetings on emerging technologies and improve our current meetings.

Refinements in budget approach and appropriate identification of costs to the Annual Meeting have brought into focus the magnitude of organization involved in conducting the Annual Meeting.

The Meetings Department hopes to improve its role in service to the AIME membership in 1972.

Respectfully submitted,

A handwritten signature in cursive script that reads "Alexander R. Scott".

Alexander R. Scott

REPORT  
of the  
COMMUNICATIONS DEPARTMENT

The AIME Communications/Public Relations Activity has had a turbulent history. As an activity whose expenses are controllable and whose intangible results are difficult to measure on cost/benefit analysis, Public Relations in AIME, like it is in industry, is usually one of the first areas to be cut back in an economy move. 1971 was an example of just such an economy move, as the position of AIME Communications Coordinator was suspended because of severe revenue constraints. It is intended that this position will continue suspended during Fiscal Year 1972 as concerted efforts are to be made to lessen these financing difficulties.

This position was suspended at a time when the AIME Council of Section Delegates was receiving and concurring in a study which pointed-up the need for a greater effort in this area by AIME. This report is to be submitted to the AIME Board for review and action in February 1972.

Miss Sheila Dobrushin continued to serve in the position of Communications Coordinator until May 25, 1971. This enabled her to provide the needed services for the AIME Centennial and in preparation for the Environmental Quality Conference. Since her departure, part-time journalistic/communications services have been provided, on a minimum essential basis, by Mr. Marc Kaufman, a student at Columbia University. Most of his efforts have been in direct support of the 1972 AIME Annual Meeting and the first North Atlantic Rapid Excavation and Tunneling Conference.

REPORT  
of the  
SECTION AFFAIRS DEPARTMENT

The question of how to best provide support to AIME Section and Student Chapters has been an open one for years. In 1968, the AIME 10-year Committee, after an extensive review of the operation of AIME, recommended that the responsibility for this support be assigned to the AIME Constituent Societies. This recommendation, although not rejected, had never been fully accepted. In 1970, a task force studying the AIME Headquarters operation again left the question for future answer. On June 7, 1971, the AIME Executive Committee decided that effective December 1, 1972, the responsibility for Section and Student Affairs should be transferred to the Constituent Societies. The AIME Board of Directors concurred in this decision on June 30, 1971.

The Executive Committee expressed concern that there be an orderly transition from the Headquarters to the Societies and asked that SME-AIME and TMS-AIME study and develop procedures to be recommended to the AIME Board for administering the Mining and Metals Sections and dividing responsibility between the two Societies. These recommendations will be submitted to the AIME Board in February 1972. As SPE-AIME had exercised this responsibility for the Petroleum Sections, there is no such transition problem for them.

Miss Alice Hegarty remained as AIME Student and Section Affairs Coordinator through the middle of August 1971, when she left to return to her field of education. Miss Janice Kramer joined the staff as temporary employee to manage the Department for the rest of 1971.

Miss Kramer also assumed the responsibility of Staff Secretary of the Mining and Metallurgical Society of America, as AIME continued to provide staff management services for that Society throughout the year.

#### 1971 Contest Winners

The Winners of the Mining and Metals Membership Contest were:

Group A	Colombian Section	12.5% increase
Group B	Wyoming Mining & Metals Section	10.5% increase
Group C	Mexico Section	7.6% increase
Group D	Alabama Section	8.8% increase
Group E	Arizona Section	5.9% increase

The Winners of the Student Paper Contest Were:UNDERGRADUATE DIVISION

Mining:	Mr. Daniel Marchant University of Wisconsin	"Manganese Nodules: Location, Formation, and Possible Exploitation"
Metallurgy:	Mr. Peter J. Blau Lehigh University	"Investigation of Metallic Spherules from the Vicinity of the Canyon Diablo Meteor Crater, Arizona"
Petroleum:	Mr. Robert J. Chebul Montana College of Mineral Science and Technology	"Arctic Oil Spill Control"

GRADUATE DIVISION

Mining:	Mr. Carlito E. Bayan University of Washington	"Comparative Study of Tunnel Boring Machine Versus Conventional Method Using Computer"
Metallurgy:	no winner	
Petroleum:	Mr. Jacques Maratier Louisiana State University	"Optimum Rotary Speed and Bit Weight for Rotary Drilling"

The Winners of the Outstanding Student Chapters Contest Were:

MINER'S SOCIETY OF THE UNIVERSITY OF ARIZONA  
University of Arizona - Tucson, Arizona  
John F. Abel, Faculty Sponsor

AIME STUDENT CHAPTER OF THE UNIVERSITY OF FLORIDA  
University of Florida - Gainesville, Florida  
R. A. Rummel, Faculty Sponsor

SOCIETY OF PETROLEUM ENGINEERS OF MISSISSIPPI STATE UNIVERSITY  
Mississippi State University - State College, Mississippi  
William D. McCain, Faculty Sponsor

AIME PETROLEUM STUDENT CHAPTER OF THE UNIVERSITY OF MISSOURI  
University of Missouri at Rolla - Rolla, Missouri  
T. C. Wilson, Faculty Sponsor

WARD BEETHAM STUDENT CHAPTER OF AIME  
Wisconsin State University - Platteville, Wisconsin  
M. P. Gronbeck, Faculty Sponsor

Respectfully submitted,

Claude A. Crowley  
Director of Administration

## 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 1971, visits--some multiple, as indicated below by number--were made to 13 different Sections and Subsections and 13 major conferences, plus AIME and Society Boards of Directors' meetings and meetings of Regional Councils of Section Delegates.

Sections and Subsections Visited During 1971 by C. J. Hicks

Bisbee-Douglas Subsection (Arizona Section), Bisbee, Arizona  
 Black Hills Section, Rapid City, South Dakota  
 Colorado Plateau Section, Grand Junction, Colorado (3)  
 Colorado Section, Denver, Colorado  
 Eastern Nevada Section, Ely, Nevada  
 Eastern Wyoming Subsection (Wyoming Mining and Metals Section),  
 Casper, Wyoming (2)  
 Morenci Subsection (Arizona Section), Morenci, Arizona  
 Northern California Metallurgical Section, Palo Alto, California  
 Northern Nevada Section, Elko, Nevada  
 San Francisco Section, San Francisco, California (2)  
 Utah Section, Salt Lake City, Utah (7)  
 Wyoming Mining and Metals Section, Casper, Wyoming  
 Yavapai Subsection (Arizona Section), Prescott, Arizona

Major Meetings and Conferences Attended by C. J. Hicks in 1971

44th Annual Meeting, Minnesota Section, Duluth, Minnesota  
 32nd Annual Mining Symposium of the University of Minnesota, Duluth  
 74th National Western Mining Conference and Exhibition, Denver, Colo.  
 AIME Centennial Celebration and 1971 Annual Meeting, New York, N.Y.  
 Pacific Northwest Metals and Minerals Conference, Portland, Oregon  
 Pacific Southwest Mineral Industry Conference, Reno, Nevada  
 MBD Subsection (Colorado Section) Annual Meeting, Colorado Springs, Colo.  
 16th Annual Convention of Wyoming Mining Association, Casper, Wyoming  
 7th Annual Intermountain Minerals Conference, Vail, Colorado  
 SME Fall Meeting and Exhibit, Seattle, Washington  
 American Mining Congress 1971 Mining Show, Las Vegas, Nevada  
 International Mining Days, El Paso, Texas  
 Annual Meeting, Arizona Section, Tucson, Arizona

Many 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 execution of five major mineral conferences held during 1971 and acted in an advisory capacity for several others.

Staff assistance in the following 1972 meetings is being, or will be, supplied by the Western Field Office:

February 19-24	AIME Annual Meeting, San Francisco, California.
April 19-21	Pacific Southwest Mineral Industry Conference, Sahara Hotel, Las Vegas, Nevada, sponsored by the Southern Nevada Section, AIME.
May 19-20	Annual Meeting MBD Subsection (Colorado Section), Broadmoor Hotel, Colorado Springs, Colorado.
May 26-27	Minerals Symposium, Ramada Inn and Holiday Inn, Grand Junction, Colorado, sponsored by the Colorado Plateau Section, AIME.
August 3-5	Intermountain Minerals Conference, Manor Vail, Vail, Colorado, sponsored by Intermountain Section, AIME.
October 18-20	Fall Meeting, Society of Mining Engineers, AIME, Birmingham, Alabama.
December 4	Annual Meeting of Arizona Section, Pioneer Hotel, Tucson, Arizona.

### Reports

A comprehensive report of the activities and plans of the Western Field Office was submitted, monthly, to the Director of Administration of AIME with copies to four Assistant Secretaries.

### Newsletters

Newsletters, under the title "Field Notes," containing lightly written news and comments of interest to Western Sections, were distributed to 229 members. This total included Section and Subsection Chairmen, Vice-Chairmen and Secretaries, Faculty Sponsors of Student Chapters and AIME, TMS and SME Boards of Directors.

### 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 their assigned mining and metals Sections and Student Chapters during the Institute year. There were 38 visits to Sections and Subsections. Acceptances were received for 11 additional visits to be made.

Fifteen Student Chapters were visited during the year. Acceptances were received for 17 assignments, and 29 Chapters remained "open" or without a scheduled visit.

### 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 23 companies responded positively with over 208 job openings. Eighty-nine Faculty Sponsors of Student Chapters were supplied, simultaneously, with the necessary information regarding the openings so that interested students might make application directly to the employers.

The 1971 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.

### 1971 Henry Krumb Lecture Series

The 1971 AIME Krumb Lecturers were G. Donald Emigh, Walter R. Hibbard and John D. Ridge. The Western Field Office acted as coordinating agency between the lecturers and the AIME Sections and Subsections at which their lectures were given. Thirteen lectures were presented to various Sections during the year, and one additional is scheduled in January, 1972.

### New Subsection

It is probable that a group of AIME members (largely SME affiliated) residing in the Carlin, Elko, Battle Mountain and Winnemucca area of Northern Nevada will take the required actions to form a Subsection of the existing Northern Nevada Section. This Section holds regular luncheon meetings in Reno. The distance between Reno and north central Nevada discourages attendance and impedes services to the Section members in the above mentioned communities.

### Rossiter W. Raymond Award and Alfred Noble Prize

In its administration of the Rossiter W. Raymond Award, the Western Field Office forwarded 26 papers meeting eligibility requirements to the Committee for consideration in making their selection of a



recipient of the award. Additional manuscripts, numbering 13, were reviewed by the Raymond Committee to determine the nominee to be considered in the Alfred Noble Prize Award competition.

Plans for 1972

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 1971 a successful and rewarding year.

Respectfully submitted,

CLIFFORD J. HICKS

Western Field Secretary, AIME

REPORT  
of the  
EXECUTIVE SECRETARY  
SOCIETY OF MINING ENGINEERS OF AIME

In 1971 AIME celebrated its Centennial. The Society of Mining Engineers of AIME went all out to support the celebration throughout the year. Net result of these efforts was an outstanding Centennial Celebration for AIME and a whopping (\$90,744) financial deficit for SME of AIME.

Frugality in operations over the past 15 years provided an SME Activities Fund accumulation and a net income from the SME Book Department operation of \$31,866 which enabled the Society to meet the deficit in good order. Balance of the Activities Fund after the balancing transfer will stand at \$57,355.06.

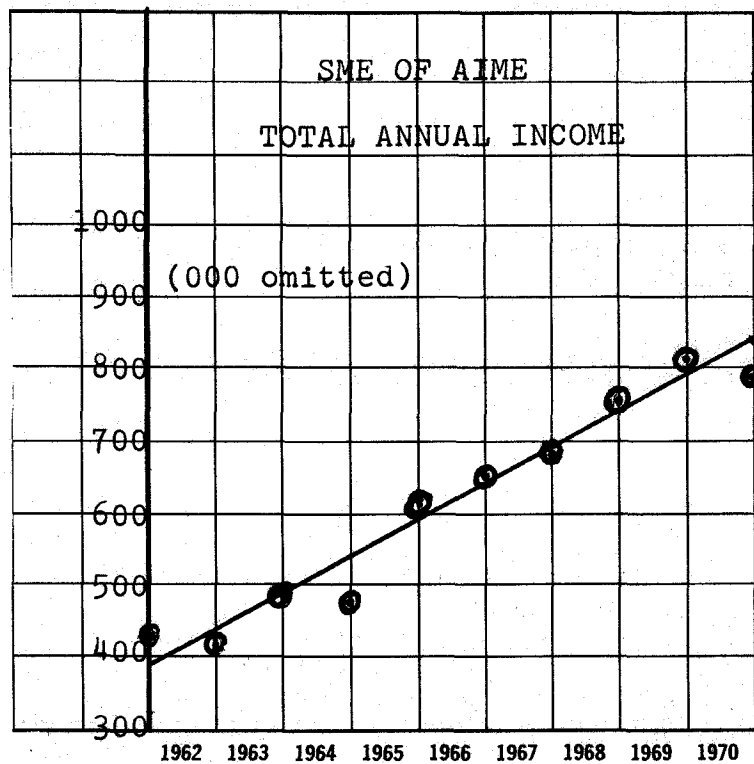


Figure 1. Presents the trend of total SME of AIME income over the ten-year period 1962-1971.

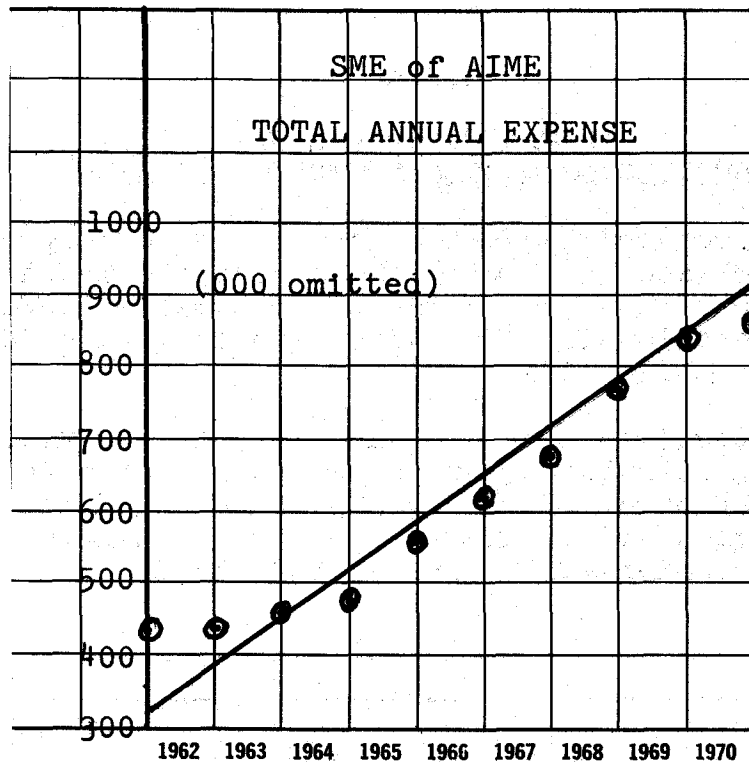


Figure 2. Presents the trend of total SME of AIME expense over the same period.

Below, and in the pages that follow, each phase of Society operation is examined and reported on.

### PUBLICATIONS

MINING ENGINEERING implemented AIME Centennial plans laid out in 1969 to develop the theme "The Next 100 Years in Mining." Advertising sales - due to the general economic climate - did not come up to expectations. As a result, net cost per member (16642 members on 1/1/71) was \$7.45 as compared with the more normal \$4.24 per member in 1970.

Figures 3 and 4 present the trends of Publications Income and Expense over the last decade.

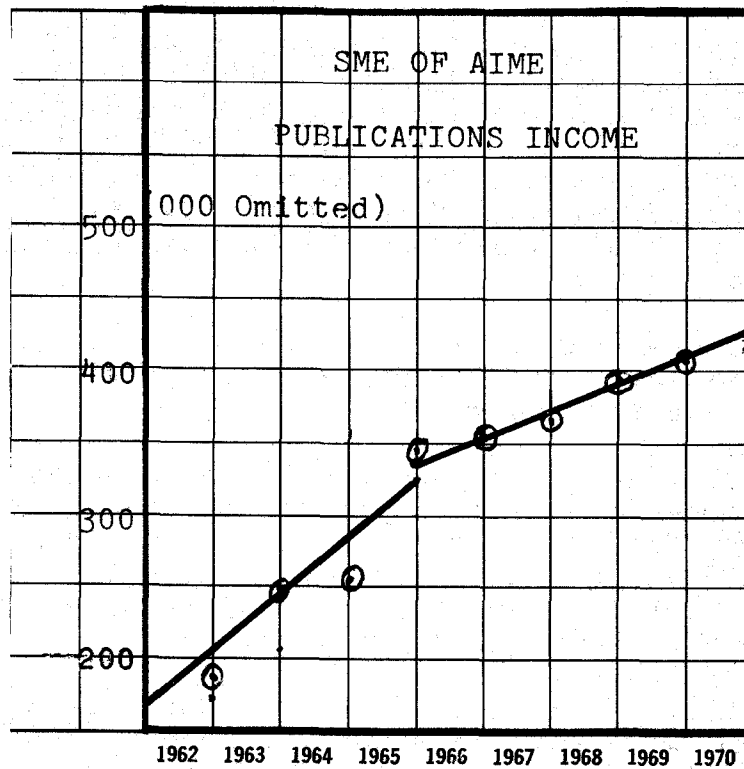


Figure 3. Presents the trend of Publications Income over the 1962-1971 period.

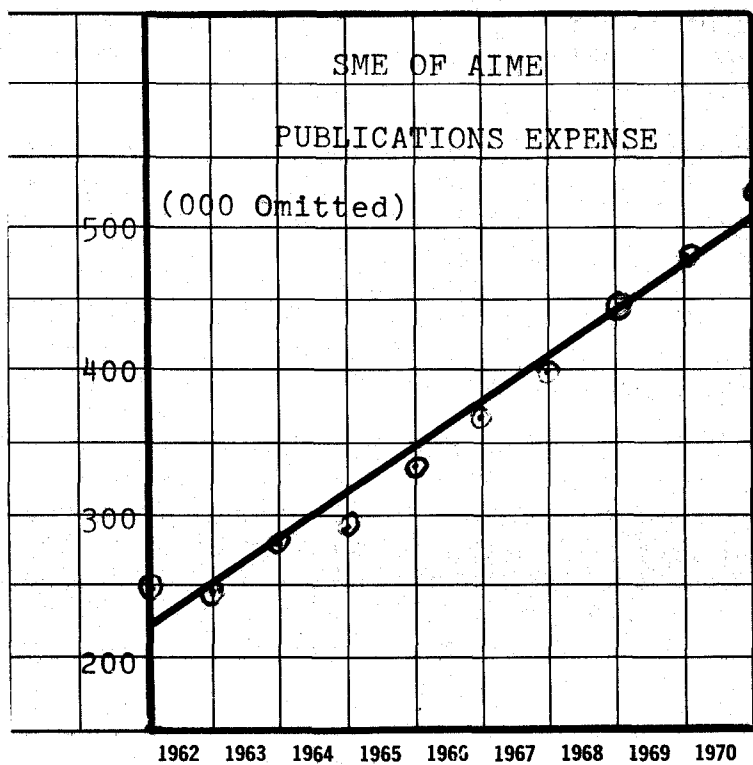


Figure 4. Presents the trend of Publications Expense over the same period.

To carry out the theme "The Next 100 Years in Mining" twenty-two invited authorities contributed present status-future forecast articles to MINING ENGINEERING - two each month excepting February. While the main thrust of the magazine during the year was to the future, the history of the past century was not slighted. "Mining Times" a monthly feature was compiled and edited by William F. Haddon. He made judicious use of historical material and pictures contributed by many members.

To start AIME's second century a new masthead, logo and layout were designed by artist Herb McClure who will be remembered also for his outstanding cover designs.

The February Annual Review was more than just an annual review issue. It was a once-in-a-century production paying tribute to AIME and the Mining Industry. This issue helped MINING ENGINEERING to outstrip all industrial magazines in advertising pages published in the first quarter of 1971. Unfortunately the momentum did not carry through the rest of the year.

"Conquest of the Northern Frontier" was the theme of the September issue of MINING ENGINEERING. This was the Special Issue dealing with the 1971 SME of AIME Fall Meeting in Seattle, Washington.

Always quick to innovate or adopt the latest methods, the SME of AIME Roster in the July issue was prepared by computer and video-comp. Blazing the trail has its dangers, however. It is expected that the "bugs" that showed up in this first directory, so compiled, will be eliminated in subsequent directories. The net result should be a more accurate less expensive roster.

Another MINING ENGINEERING innovation - the three-year campaign in behalf of "Careers in Mining" was brought to a close with the December 1971 issue. This monthly feature, prepared by William F. Haddon, demonstrated that mining companies and the Society can work together effectively and at reasonable cost, to put over a point to our members and to a selected public. In this case the point was that the Mineral Industries present good opportunities and the public was the Junior and Senior high school students of the country.

With the help of the WAAIME and the AIME Sections it is estimated that the 18x24 in. posters produced from the ME pages were displayed by 3200 High School guidance counselors again this year. It is difficult to determine the value of a program like this. Perhaps a measure of its success is the increase in the number of AIME Student Members over the period. On 1/1/68 there were 773 SME Student Members; on 1/2/72 there were 1170.

### TRANSACTIONS

Begun in 1970 a new system of handling transactions papers came into its own in 1971. There were 303 papers processed in 1971 compared to 268 in 1970.

The attached sheet shows how the Transactions Review Committee disposed of the 303 papers submitted to it during the year.

Papers accepted were published in three special issues and one general issue of the Transactions Quarterly, as follows:

June - Mining and Exploration  
September - Minerals Beneficiation  
December - Mining and Exploration

The March issue was a general issue containing papers submitted by all four divisions of the Society.

Further improvements in the handling of papers submitted for review is expected.

### PREPRINTS

The Society's Preprint Program continues to provide a well patronized service to the members. In 1971 195 papers were preprinted. This includes both the AIME Centennial Meeting in New York and the SME of AIME Fall Meeting in Seattle.

### PERSONNEL SERVICE

The pages in MINING ENGINEERING devoted to bringing together Members seeking jobs and companies looking for employees continued to render this service. No statistics are available on results since all inquiries are forwarded to the principals, unopened.

A Recapitulation of 1971 Committees Actions  
on  
Technical Papers  
January 4, 1972

	AS	A	AM	AO	AG	AR	AU	B	F	FM	H	*	**	Geol.	Engrg.	J	K	Geochem.	-	Geophysics
Returned for Authors(s) revision & Consider- ation of comments	2	-	6	1	2	-	-	26	2	-	5	4	2	-	-	-	-	-	-	-
In review or pending Committee action 1	-	-	2	-	-	2	8	29	1	-	-	4	-	-	-	-	-	-	-	5
Withdrawn Declined	3	-	6	2	1	2	2	20	3	1	17	6	2	-	1	-	-	-	-	2
Accepted awaiting publication 2	1	-	3	-	4	3	-	23	7	-	3	2	-	-	-	-	-	-	-	1
Published in ME	-	-	1	-	1	-	2	2	1	-	1	1	-	-	1	-	-	-	-	-
Published in TRANS.	5	-	5	1	4	2	2	21	5	3	10	5	1	-	2	4	-	-	-	2
Published in ME & TRANS.	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
TOTALS	11	-	23	4	12	9	14	121	19	4	37	22	5	-	5	7	-	-	-	10

Total Papers 303

1) We have received a number  
of Recommendations on these  
papers since January 4.

2) Most of these papers are  
scheduled for the March & June 1972  
quarterlies.

AU-Underground  
AG-Hydrology  
B-Minerals Beneficiation  
F-Coal  
FM-Rock Mechanics (coal)  
H-Industrial Minerals  
I-Geol., Geol. Engrg.  
J-Education  
K-Economics

A-Mining  
AM-Rock Mechanics (mining)  
AO-Open Pit  
AS-Solution Mining  
AR-Operations Research

## BOOKS

The Society of Mining Engineers of AIME published in 1971:

1. *Dynamic Rock Mechanics*, proceedings of the 12th Symposium, G.B. Clark, ed., April 1971, 1033 pages, hard cover, illustrated.
2. *Stability in Open Pit Mining*, proceedings of the 1st Symposium on Stability in Open Pit Mining, C.O. Brawner and V. Milligan, eds., August 1971, 242 pages, hard cover, illustrated.
3. Reprinted 1000 copies of *A Decade of Digital Computing in the Mineral Industries*, April 1971.
4. Reprinted 3000 copies of *Ore Deposits of the United States, 1936-1967*, January 1971.

Currently the SME Book Department is working on:

1. *Basic and Applied Rock Mechanics*, proceedings of the 10th Symposium, K.E. Gray, ed., to be published in April 1972.
2. *Cumulative Index of SME/AIME Mining Publication, 1936-1968*, compiled by W.D. White, to be published in March 1972.
3. *Geotechnical Practice for Stability in Open Pit Mining*, proceedings of the 2nd Symposium at the University of British Columbia, November 1971, C.O. Brawner and V. Milligan, eds., to be published late spring of 1972.
4. *Mining Engineering Handbook*, I.A. Given, ed., to be published in the fall of 1972.
5. *Economics of the Mineral Industries*, 3rd. ed., for the Seeley W. Mudd Memorial Fund of AIME; work on the book to start in the spring of 1972.

A brochure describing SME and related AIME publications was mailed to approximately 26,000 members and potential customers in June 1971. A new brochure will be prepared and mailed in the late spring of 1972 and will contain descriptive material about those publications not described in the 1971 brochure. This brochure will also contain a complete listing of SME/AIME books and other publications now in print.

A cumulative financial statement for SME-financed books is attached.



# REPORT TO SME BOARD OF DIRECTORS, FEBRUARY 1972, ON SME-FINANCED BOOKS

Data for Fiscal Year December 1, 1970--November 30, 1971

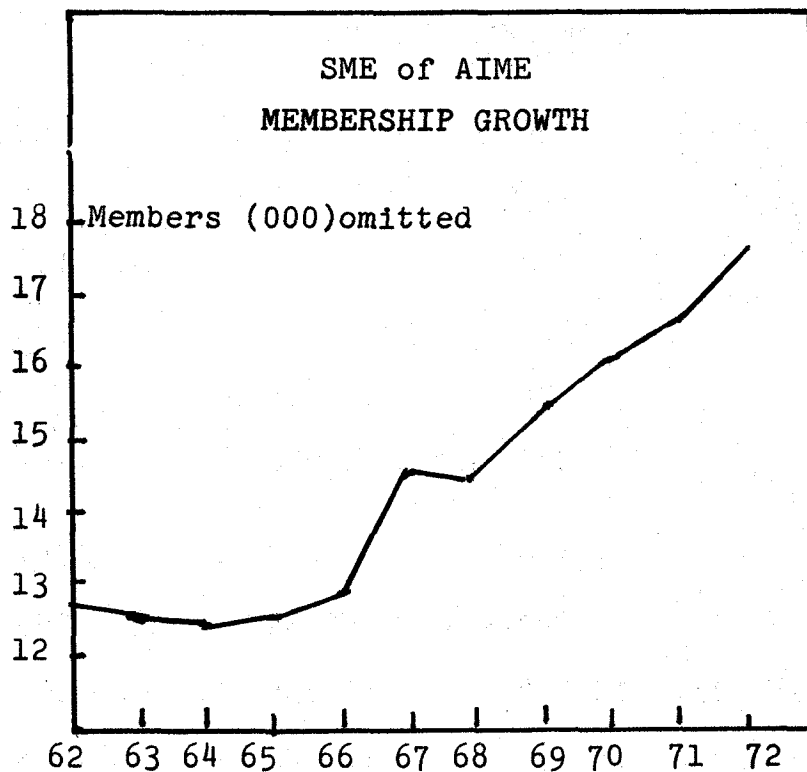
BOOK	Date Pub.	No. Printed	Cost per Copy	In- ventory 11-30-71	In- ventory Value	Income	Expense	Excess of Income Over Expense
Failure and Breakage of Rock (8th Symposium)	1967	2000	\$ 5.88	79	\$ 465	\$ 24,856	\$ 17,678	\$ 7,178
Status of Practical Rock Mechanics (9th Symposium)	1968	1500	8.06	472	3,804	16,543	12,089	4,454
A Decade of Digital Computing in the Mineral Industry	1969	3000*	5.46	899	4,908	29,562	16,387	13,175
Case Studies of Surface Mining Mining	1969	2000	5.49	855	4,694	22,613	10,984	11,629
Rapid Excavation--Problems and Progress	1970	2000	5.62	282	1,585	22,094	11,248	10,846
Rock Mechanics--Theory and Practice (11th Symposium)	1970	1500	16.50	686	11,319	10,533	24,755	(14,222)
AIIME World Symposium on the Mining & Metallurgy of Lead & Zinc (2 Vols.)	1970	4000	7.89	1295	10,218	35,044	31,539	3,505
Dynamic Rock Mechanics (12th Symposium)	1971	1500	9.72	846	8,223	7,323	14,577	(7,254)
Stability in Open Pit Mining	1971	1500	3.53	640	2,259	10,290	5,292	4,998
Basic and Applied Rock Mechanics (10th Symposium)	1972+	--	--	--	--	4,365	278	4,087
					\$ 47,475	\$183,223	\$144,827	\$ 38,396

\*1000 copies reprinted, added to inventory April 1971.

+To be published April 1972; complete expense data not yet available.

### MEMBERSHIP DEVELOPMENT

Membership in SME of AIME continued to grow in 1971 and on January 1, 1972 stood at 17,841 - up 893, net gain from January 1, 1971. The curve below shows the Society's growth since 1962.



On the pages that follow are tabulated statistics for 1971 and for the past decade by Division and by category of membership.

AIME MEMBERSHIP

	<u>SME</u>	<u>TMS</u>	<u>SPE</u>	<u>AIME</u>
Losses 1971				
Deaths	125	51	47	223
Resignations	177	264	158	599
Drops	500	707	788	1,995
Unaccepted	<u>74</u>	<u>59</u>	<u>111</u>	<u>244</u>
Total	876	1,081	1,104	3,061
 Gains 1971	 1,769	 927	 1,897	 4,593
Net Gain	893	(154)	793	1,532
Corp. Members 1/1/71	15,778	10,536	16,781	43,095
Corp. Members 1/1/72	16,671	10,382	17,574	44,627
Students 1/1/72	1,170	2,039	753	3,962
 Total 1/1/72	 17,841	 12,421	 18,327	 48,589

The Society also follows up on nonmember meeting registrants and the results of these letters and President's letters are reported below.

List of Coded Applications

President's Letter 1965 -	3
President's Letter 1967 -	5
President's Letter 1968 -	9
President's Letter 1970 -	32
President's Letter 1971 -	107
AIME Annual Meeting Denver, Colorado 1970 -	10
SME Fall Meeting 1970 - St. Louis, Mo.	5
Mining Congress 1970 -	34
AIME Annual Meeting New York, N. Y. 1971 -	5
SME Fall Meeting 1971 - Seattle, Wash.	5
AMC Coal Show 1971 -	27
Miscellaneous Lists -	<u>31</u>

273

The table is interesting in that it shows that 3 new members in 1971 filled out applications that were mailed with the 1965 President's letter.

SME MEMBERSHIP

<u>AS OF</u>	<u>M &amp; E</u>	<u>COAL</u>	<u>IndMD</u>	<u>MBD</u>	<u>EDUC.</u>	<u>ECON.</u>	<u>STUD.</u>	<u>UNCLASS</u>	<u>TOTAL MEMBERS</u>	<u>CORP MEMBERS</u>
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	795	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

35

Jan. 20, 1972

SME MEMBERSHIP

<u>AS OF</u>	<u>TOTAL MEMBERS</u>	<u>CORP MEMBERS</u>	<u>MEMBERS</u>	<u>ASSOC.</u>	<u>JUNIORS</u>	<u>STUDENTS</u>
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	773
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	2,753	2,305	1,653
1/1/1972	17,841	16,671	11,343	2,840	2,488	1,170

MEETINGS

We have referred throughout to the AIME Centennial and the important part it played in the Society operations this year. The table below illustrates attendance at meetings compared to previous years.

## SME MEETING ATTENDANCE

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
Annual	1221	1072	1438	1421	1633	1407	2699	1996
% Total	39.9	40.1	42.0	42.6	51.1	63.1	69.4	62.0
Place	N.Y.	Chic.	N.Y.	Los Angeles	N.Y.	Wash. D.C.	Denver	N.Y.
Fall Mtg.	930	800	1546	1646	1400	2717	1893	837
Place	N.Y.	Phoenix	Tampa	Las Vegas	Minn-eapo-lis	Salt Lake	St. Louis	Seattle
Coal Div. Spring Meeting		49	220	211	414	632	183	n.a.

The general economic climate and remote location is thought to be the main reason for the falloff in attendance at Seattle.

SME Members, of course, took part in a number of other meetings throughout the year but none was under the direct management of the Society.

Very important was the celebration near Wilkes Barre, Pennsylvania of the Hundredth Anniversary of the founding of AIME. This meeting was held jointly with the SME Coal Division Spring Field Meeting. It attracted more than 400 registrants.

A plaque commemorating the founding of AIME was presented to the Penn Anthracite Section AIME, Hosts to the meeting.

1971 STAFF TRAVEL

January	Westinghouse Coal Mine Rescue & Survival System - Princeton, W. Va.	RPS
	Interview - 1971 President James D. Reilly Palm Beach, Fla.	JVB
February	Seattle Section - Re: SME Fall Meeting Seattle, Washington	RMO, CJH
	AIME Annual Meeting, New York, N. Y.	JCF, JVB, LED, RMO, AR, VJD, MS, RPS, RCH, RWW, TM, PZ
April	Offshore Technology Conference Houston, Texas	LED
	Sprague & Henwood Press Conference Scranton, Pa.	JVB
June	Birmingham Section - Re: SME Fall Meeting Birmingham, Alabama	RMO
	National Conference on Environmental Quality, Washington, D. C.	JVB
July	AIME Executive Comm. Meeting	JCF
August	Congressional hearings on Stillwater Complex - Billings, Montana	JVB
September	SME Fall Meeting & Exhibit Seattle, Washington	JCF, JVB, LED, RMO, AR, VJD, MS, RPS, CJH, EB
October	AIME Board Meeting at the SPE Fall Meeting, New Orleans, La.	JCF
	American Mining Congress, Las Vegas, Nev.	JVB, RCH
November	Geological Society of America Washington, D. C.	JCF, LED, RMO
	Pittsburgh Off-the-Record Meeting Pittsburgh, Pa.	JCF, JVB
	Southeastern Section Meeting Birmingham, Alabama	JCF
	Local Section - Re: 1975 SME Fall Meeting Milwaukee, Wisconsin	JVB



December

Arizona Section Meeting  
Tucson, Arizona

JCF, JVB

Symposium on the Valuation of  
Oil & Mineral Rights  
Phoenix, Arizona

JVB

JCF - John Cameron Fox  
JVB - John V. Beall  
LED - Lillian E. Donaldson  
RMO - Ruth M. Orologio  
CJH - Clifford J. Hicks  
MS - Marianne Snedeker  
AR - Alice Ruiz

RCH - Robert C. Holland  
RWW - Robert W. Wilson  
TM - Teresa Marcolini  
PZ - Patricia Zuber  
EB - Evelyn Burke  
RPS - Robert P. Sisselman  
VJD - Vera J. Dailey

### MEMBER SERVICE

In addition to MINING ENGINEERING Magazine, Transactions of the Society of Mining Engineers, the Employment Service, Group Insurance Programs, Books published, the Society continues to present Short Courses before the Annual Meeting and the Fall Meeting.

In 1971 the course before the Centennial Meeting was "Financial Analysis in the Minerals Industry." 213 persons profited by the lectures and exercises presented.

Before the Fall Meeting in Seattle a short course on "Arctic Exploration and Mining" drew 33 persons who were enthusiastic about the lectures and knowledge gained.

### STAFF ORGANIZATION

This report would be inadequate if it did not recognize the hard work and loyalty of the SME of AIME Staff. In the Executive Secretary's Office Mmes. Donaldson, Orologio and Ruiz worked hard and long on the regular and extra regular affairs of the Society and Institute.

Mr. R. K. Lockwood, Assistant Executive Secretary, left our employ in January. His job remained open until December when Mr. Alex R. Scott took over the post. Mrs. Orologio has been advanced from Administrative Assistant to Convention Manager.

The Publications Staff under the able and loyal direction of John V. Beall has seen a number of changes and ended the year with fewer employees - even though the work load is heavier.

In the Editorial Department A. B. Caldwell resigned to go to greener pastures. Miss F. Muehleck resigned to travel. Miss Susan Schutt and Mrs. Regina Nelson left to be married and have a baby, respectively. Miss Karen Christie replaced Miss Schutt in November.

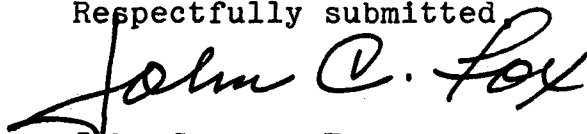
Mrs. V. J. Dailey and Mr. R. P. Sisselman were advanced to the post of Associate Editor on December 1 and Mr. R. C. Holland was made National (and Eastern) Advertising Manager on the same date. Mr. Holland is assisted by Joseph Parry, Central Ad. Manager and P. J. O'Rourke will handle the West and Southwest territories. Mr. Robert LaRusso was made Advertising Controller and provides supervision for the Advertising and Production Departments.

It is with great regret that we record the resignation of Robert W. Wilson for 17 years Advertising Manager and Salesman. His poor health made this move necessary.

Acknowledgement must be made here of an outstanding performance by Miss Marianne Snedeker. As Manager of the SME of AIME Book Department her dedication to the Society and her economical, knowledgeable discharge of her duties resulted in a net income for her department that was used to offset more than one-third of the Society's Centennial Year deficit.

Acknowledgement is also due for the tremendous assistance the Staff enjoyed from the Officers, Directors and Members of the Society and the Institute Staff. Without them whatever we accomplished would not have been possible.

Respectfully submitted



John Cameron Fox

REPORT  
of the  
EXECUTIVE SECRETARY OF THE METALLURGICAL SOCIETY OF AIME  
for 1971

The Metallurgical Society of AIME had a bad year in 1971. It would be easy, if fruitless, to cite through hindsight, historical causes for 1971 ailments. The predominant and crippling symptom was, and remains, financial instability. As a generalization, inflation caught up with The Metallurgical Society of AIME in 1970-1971, at a moment in time when its financial resources were overextended, its resistance to external pressures sapped, and its manpower resources weakened.

Response to hard times by TMS-AIME Society officers and committeemen, and by AIME staff was gratifying and incisive. First came recognition and identification of problem areas within the Society. Then came ordering of priorities. As of March, 1971, these were:

- Journal of Metals: which over the past 20 years has absorbed some \$1,060,000 beyond its revenue, through editorial and publishing policies now in question.
- Technical Conferences: which in recent years have relied ever more heavily on headquarters staff input while, for some, multiplying in technical programming.
- Books: those which in earlier years found a ready market among commercial publishers, today must be published by the Society.
- Membership: which has ceased to grow at its earlier annual rate, and in 1971 declined.
- Local Sections: which have become increasingly more distant from TMS-AIME.
- Student Chapters: those ASM/TMS-AIME joint students seemingly fail to join this Society in significant numbers.
- Fragmentation: Increasing, rather than decreasing, splinter groups within the Society, each seeking differing levels and directions in membership service.

Revenue:

Decreasing yearly, in real dollars, owing not only to steady national inflation but also decreasing dues renewal rates, decreasing Journal of Metals advertising, decreasing conference registrations. These last items compounded, if not originated, by national recession accompanied by a higher-than-usual unemployment rate among those practicing metallurgy and allied disciplines.

FINANCES

Total TMS-AIME 1971 expenses of \$462,737 were offset by \$382,271 in revenue, for a deficit of \$80,466. Comparison with earlier years is as follows:

Income/Costs/Per Corporate Member

<u>Year</u>	<u>Revenue</u>	<u>Expense</u>	<u>Deficit</u>
1951	\$27.54	\$36.32	(\$ 8.78)
1955	35.69	35.41	.28
1960	37.45	37.45	-0-
1965	45.51	45.23	.28
1970	44.20	47.75	(3.55)
1971	36.82*	44.57	(7.75)
1972 (estimated)	45.02*	52.81	(7.79)

\* omits Krumb Fund support (1971 = \$53,500) (1972 estimated = \$52,000) which, if included, boosts per corporate member (i) 1971 revenue to \$43.85 and changes deficit to (\$ .75) and (ii) 1972 forecast revenue to \$49.96 and changes deficit to (\$2.85). These deficits are to be met from the TMS-AIME activities fund.

For fiscal year 1971, a deficit of \$75,000 was programmed for reasons explained in the section of this report on Journal of Metals. Variance of actual deficit from programmed deficit is \$5,466, or 1.2% from the fiscal year 1971 operating plan.

TECHNICAL CONFERENCES

The Metallurgical Society of AIME sponsored or co-sponsored ten conferences during calendar year 1971:

		<u>Attendance</u>	<u>Number of Technical Sessions</u>	<u>Number of Papers Scheduled</u>
January 20 Pittsburgh	13th Mechanical Working & Steel Processing Conf.	152	5	20
February 26- March 4 New York	100th AIME Annual Meeting (TMS segment only)	1034	49	253
April 18-21 Houston	3rd Annual Offshore Technology Conference and Exposition	25	(29)*	(165)*
April 19-21 Pittsburgh	54th National Open Hearth and Basic Oxygen Steel Conf. joint with 30th Ironmaking Conf.	1080 587	7 11	24 39
April 22-23 Hartford	New England Regional Conference	51	4	13
May 17-20 Atlanta	TMS Spring Meeting	594	55	374
June 7-9 Washington	Environmental Quality Conference	60	4	18
August 29- September 1 San Francisco	13th Annual Electronic Materials Conference	217	6	42
October 18-21 Detroit	TMS Fall Meeting	603	65	408
December 8- 10 Toronto	29th Electric Furnace Conference	<u>1019</u>	<u>10</u>	<u>36</u>
	TOTALS	5422	216	1227

\* Predominantly non-TMS sessions - not included in totals

Note: Attendance in 1971 was 892 less (combined) than in 1970 (6,314).  
The same number of technical sessions were scheduled (216).  
93 more papers were scheduled in 1971 than in 1970 (1,314).

SCHEDULE OF TMS-AIME CONFERENCES FOR 1972

January 19	14th Mechanical Working and Steel Processing Conference, Pittsburgh Hilton, Pittsburgh, Pennsylvania
January 26	7th Detroit Section "Off-the-Record" Conference Detroit Hilton, Detroit, Michigan
February 19-24	101st AIME Annual Meeting, San Francisco Hilton, San Francisco, California
* March 3-8	Stack Sampling and Monitoring, Asilomar Conference Grounds, Pacific Grove, California
April 10-12	55th National Open Hearth and Basic Oxygen Steel Conference and 31st Ironmaking Conference, Palmer House, Chicago, Illinois
* May 1-3	4th Annual Offshore Technology Conference, Astrohall, Astroworld, Houston, Texas
May 2-5	2nd International Titanium Conference, I.I.T. and Statler, Cambridge, Massachusetts
May 8-11	TMS-AIME Spring Meeting, Sheraton-Boston, Boston, Massachusetts
August 28-30	14th Electronic Materials Conference, Sheraton-Boston, Boston, Massachusetts
September 17-20	TMS-AIME Superalloys Conference, Seven Springs Mountain Resort, Champion, Pennsylvania
September	10th Cleveland Section "Off-the-Record" Conference, Cleveland Sheraton, Cleveland, Ohio
* October 2-5	Conference on Metallurgical Effects at High Strain Rates, Four Seasons Motor Lodge, Albuquerque, New Mexico
October 16-19	TMS-AIME Fall Meeting, Cleveland, Ohio
November 3	Pittsburgh Section "Off-the-Record" Conference, Pittsburgh Hilton, Pittsburgh, Pennsylvania
December 6-8	30th Electric Furnace Conference, Palmer House, Chicago, Illinois

\* Co-sponsored by TMS-AIME and other groups.

### MEMBERSHIP DEVELOPMENT

A weakness in Society membership development activities showed itself, during 1971, in a decline of 154 corporate members. For several years previously, membership development work found itself limited largely to membership desk activities at some (not all) national conferences and to on-request distribution of membership applications and the two TMS-AIME standard booklets, Careers in Metallurgy, Materials Science and Metallurgical Engineering and Passport to Professionalism.

Commencing in April, 1971, the three-pronged membership development program aimed to (i) retain present corporate membership to whatever degree possible, (ii) update and redesign information booklets, (iii) generate new techniques for relative effectiveness. These techniques, not heretofore employed, include:

- featuring certain non-member career advances, along with member promotions, in Journal of Metals followed up by letters and membership information.
- individualized letters, at xerox copy prices, to non-member registrants at all national conferences.
- standardized conference membership desk procedures, such to vastly improve membership solicitation efforts by inexperienced but enthusiastic TMS-AIME volunteers.
- redefined charge to TMS-AIME membership committee to encourage and increase participation by eager and highly motivated TMS-AIME members.
- introduction of a monthly 4-page newsletter as part of Journal of Metals, distributed subsequently to all member prospects and informing them of the excitement and professional stimulation of TMS-AIME membership.
- a proposal to encourage company support of TMS-AIME through a regular program of annual contributions.
- a proposal to improve conversion percentage of graduating metallurgists from joint student members to corporate members.
- negotiations with the present editor of an annual list of metallurgical faculty members nationwide leading to TMS-AIME publication of the booklet.

All these tasks have been structured to permit ready and continuous appraisal of response. The more effective techniques will be expanded.



TMS-AIME MEMBERSHIP STATISTICS

<u>Breakdown by division</u>	<u>December 1969</u>	<u>December 1970</u>	<u>December 1971</u>
Iron and Steel Division	3,728	3,413	3,283
Extractive Metallurgy Division	1,655	1,607	1,641
Institute of Metals Division	4,444	4,085	4,008
AIME Council of Education	30	27	30
AIME Council of Economics	83	75	68
Unclassified	<u>1,536</u>	<u>1,329</u>	<u>1,352</u>
Subtotal	11,476	10,536	10,382
Student Members	<u>2,233</u>	<u>2,098</u>	<u>2,039</u>
Total	13,709	12,634	12,421

Breakdown

Member	6,875	6,679	6,661
Associate	1,818	1,962	1,893
Junior	2,783	1,895	1,819
Student	<u>2,233</u>	<u>2,098</u>	<u>2,039</u>
Total	13,709	16,634	12,421

JOURNAL OF METALS

From December, 1970 to November, 1971, Journal of Metals published 808 pages, down 11-1/2% from the same period in 1970. The reduction came about through budget strictures. A comparison of the two years shows:

	<u>editorial</u>	<u>advertising</u>	<u>conference</u>	<u>books, etc.</u>	<u>total</u>
1971	570-1/2	75	88	74-1/2	808
1970	642	124-1/2	85-1/2	60	912

Vastly altered internal cost control procedures, patterned after uniform reporting practices of the publishing industry were introduced during 1971 permitting total cost analysis on an issue-by-issue and cumulative basis. Total expenses of \$154,092 fell within 3.9% of operating budget, and Journal of Metals printing and mailing costs of \$70.85 per page were less than 1/2 of 1% off target.

This dominating interest in Journal of Metals finances came through recognition that the publication had been a steady drain on Society financial resources. An October, 1970 report to the TMS-AIME board, in demonstration of the critical nature of the problem, proposed choosing between: (i) replacing Journal of Metals with a newsletter, (ii) lifting policy restraints and managing the publication, as well as other revenue-producing sources, to operating standards and practices of commercial for-profit groups (recognizing, however, that Journal of Metals was to be operated at an essentially breakeven cost over-all). Alternative (iii), presented to the TMS-AIME board on December 15, 1970, proposed to contract out Journal of Metals publication to another non-profit society.

The decision was to rebuild Journal of Metals (alternative (ii)). The basis of this rebuilding program was a three-year plan proposed by AIME executive director Joe B. Alford and adopted by the TMS-AIME board at the December 15 meeting. The plan was to seek support from AIME endowment funds for two-thirds of the needed financing and one-third to be provided by the TMS-AIME activities fund. Subsequently, the AIME Krumb Fund Committee agreed in principle to provide up to \$53,500 financial assistance in 1971, up to \$52,000 in 1972, and up to \$35,334 in 1973. On February 28, 1971, the AIME board of directors stated approval of the three-year plan, and appropriated up to \$53,500 from the Krumb Fund for fiscal year 1971, or to bring TMS-AIME up to a breakeven point in its total budget, whichever is less.

This plan is being implemented under the following overall policy, adopted by the TMS-AIME board on June 29, 1971:

"The Board of Directors has.....(i) specifically delegated to the executive secretary a responsibility as publisher of the Society's books and periodicals, (except those historically handled by operating committees) including Journal of Metals, (ii) defined Journal of Metals as an independent entity for which the executive secretary is solely responsible, and (iii) delegated to the executive secretary whatever authority seems required, within AIME policy, to bring about a profit/loss financial stability and better than breakeven status. As rapidly as possible, and certainly

within a 5-year period, Journal of Metals should achieve a self-sustaining status."

Substantial progress was achieved in each of the following areas over succeeding months:

- editorial format - redesigning the magazine to improve readability, impact, acceptance, while maintaining the desirable Society image of authenticity.
- editorial content - reconstructing an editorial approach responsive to reader needs, including (i) editorial balance in published matter appropriate to Society interests, (ii) broad-spectrum editorial matter of interest to all readers.
- circulation - generating enlarged circulation and new circulation records, based on the old but structured to allow extraction of essential data helpful to sales efforts.
- production - improving printing quality within context of available funds, such as to sustain and enhance improvements in other publishing areas.
- promotion - embarking on a regular program of mailings to some 1,000 advertisers and agencies to place before them a repeated story on magazine progress toward an exciting and attractive vehicle for their advertising.
- manpower - hiring new magazine management, heavily experienced in publishing, editorial and advertising areas to conduct operations on an efficient, professional basis.
- advertising - mounting a strong advertising sales effort, using as tools the editorial new magazine, new circulation and readership data, new promotion material.

# METALLURGICAL TRANSACTIONS

This world-renowned scientific journal, established by TMS-AIME in 1958 as Transactions of The Metallurgical Society of AIME, has completed its second year as a joint venture with American Society for Metals. Expenses in calendar year 1970 of \$311,149.81 were offset by revenue of \$284,880.51 for a joint ASM/TMS-AIME loss of \$26,269.30. TMS-AIME loss for 1970, including certain one-time expenses, was \$23,272.19. Through September 30 of calendar year 1971, expenses of \$247,534.24 and revenue of \$227,624.83 yield a joint deficit through the third-quarter of \$19,909.41.

## Statistics

### Number of papers published

		<u>EMD</u>	<u>ISD</u>	<u>ASM/ISD</u>	<u>Special</u>	<u>Total</u>
Technical papers	- 1970	45	25	305	26	401
	- 1971	47	26	342	-	415
Communications	- 1970	16	10	145	-	171
	- 1971	14	6	118	-	138
Other	- 1970	-	-	-	-	-
	- 1971	-	-	-	-	-
Total	- 1970	61	35	450	26	572
	- 1971	61	32	460	-	553

### Number of pages published

		<u>EMD</u>	<u>ISD</u>	<u>ASM/ISD</u>	<u>Special</u>	<u>Total</u>
Technical papers	- 1970	280	164	2246	178	2868
	- 1971	307	199	2462	-	2968
Communications	- 1970	25	23	271	-	319
	- 1971	27	9	224	-	260
Other	- 1970	-	-	-	343	343
	- 1971	-	-	-	380	380
Total	- 1970	305	187	2517	521	3530
	- 1971	334	208	2686	380	3608

### BOOKS

In 1971, TMS-AIME published: Light Metals 1971. Work is now in progress on the following publications:

Proceedings of the 13th Mechanical Working and Steel Processing Conference - 1971

Proceedings of the 30th Ironmaking Conference - 1971

Proceedings of the 54th National Open Hearth and Basic Oxygen Steel Conference - 1971

Proceedings of the 28th Electric Furnace Conference - 1970

Abstract Bulletin of the TMS-AIME Spring Meeting - 1971

Abstract Bulletin of the TMS-AIME Fall Meeting - 1971

Work has also commenced on the following books:

Proceedings of the 14th Mechanical Working and Steel Processing Conference - 1972

Proceedings of the 29th Electric Furnace Conference - 1971

Proceedings of the 31st Ironmaking Conference - 1972

Proceedings of the 55th National Open Hearth and Basic Oxygen Steel Conference - 1972

Nature and Behavior of Grain Boundaries -(to be published by Plenum Publishing Corporation)

Light Metals 1972

Environmental Control

Titanium Metallurgy

Titanium Fabrication

Superalloys 1972

Chemical Aspects of Corrosion and Mass Transfer in Liquid Sodium (1971 Fall)

Composites: State of the Art (1971 Fall Meeting)

Metals and Alloys (1972 Spring Meeting)

Failure Modes in Composites (1972 Spring Meeting)

Processing and Properties of Low Carbon Steel (1972 Fall Meeting)

Abstract Bulletin of the TMS-AIME Spring Meeting - 1972

## HONORS AND AWARDS

Newly elected Fellows of The Metallurgical Society of AIME installed at the 1971 Annual Meeting in New York City, were:

Mars Guy Fontana  
Maxwell Gensamer  
Julius J. Harwood  
Frederick N. Rhines  
David Swan

TMS-AIME board of directors has elected the following members to the grade of Fellow in 1972:

John Convey  
Robert I. Jaffee  
Herbert H. Kellogg  
Max W. Lightner  
William D. Manly

The following awards were presented by The Metallurgical Society of AIME during 1971:

1. Robert Lansing Hardy Gold Medal

Awarded to Carolyn M. Preece

2. Champion H. Mathewson Gold Medal

Awarded to Bernard H. Kear

3. Robert W. Hunt Award

Awarded to Paul Kozakevitch

4. Extractive Metallurgy Division Science Award

Awarded to Z. Asaki, Y. Kondo and S. Yamazaki

5. Extractive Metallurgy Division Technology Award

Awarded to O. A. Sundstrom

6. J. E. Johnson, Jr. Award

Awarded to H. Raymond Pratt

7. Frank B. McKune Award

Awarded to T. Raymond Meadowcroft and Robert J. Milbourne

8. Open Hearth Conference Award

Awarded to Ulrich H. Pause and Barry A. Strathdee

9. Charles H. Herty, Jr. Award

Awarded to Laszlo Backer and Paul Remy Gosselin

10. Ironmaking Conference Award

Awarded to Hans vom Ende, Klaus Grebe and Karl Georg Speith

11. Joseph Becker Award

Awarded to Frans Wethly

12. Thomas L. Joseph Award

Awarded to Edward W. Davis

13. Charles W. Briggs Award (formerly Electric Furnace Conference Award)

Awarded to Paul Bilek, John Farrell and Donald Hilty

Lectures

1. 1971 Extractive Metallurgy Division Lecture

F. Denys Richardson - "Drops and Bubbles in Extractive Metallurgy."

2. 1971 Howe Memorial Lecture (Iron and Steel Division)

William O. Philbrook - "Progress in Understanding the Rates of Metallurgical Processes."

3. 1971 Institute of Metals Division Lecture

Paul A. Beck - "Some Recent Results on Magnetism in Alloys."

During 1971, three new awards were instituted and these will be awarded for the first time during 1972. They are:

1. Mechanical Working and Steel Processing Conference Highest Award
2. Mechanical Working and Steel Processing Conference Meritorious Award
3. John Chipman Award (awarded by the Process Technology Committee of the Iron and Steel Division)

ACKNOWLEDGMENT

The year brought new faces to the Society headquarters staff to replace resignations and to strengthen membership services and publications areas. Those leaving to accept other assignments included Jack V. Richard, Ken Galione and Joanne Collins. Journal of Metals received a new publisher, new editor, and new advertising sales manager. As of December 30, 1971, the headquarters staff of The Metallurgical Society of AIME included:

Member Services

Executive Secretary.....Charles Moore

Administrative Assistant.....Beryl Poulton

Secretary.....Maryann Nugent

Conferences and Committees

Conference Director.....Fred Motts

Secretary.....Sandra Kamenske

Conference Director.....Marjorie Musil

Secretary.....Susan Hartnett (nee Orosz)

Journal of Metals

Publisher.....Charles Moore

Editor.....Lawrence Kuhn

Associate Editor.....Otto Johnson

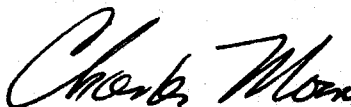
Editorial Assistant.....Susan Osberg

Advertising Sales Manager.....Linwood Williams

Assistant.....Lydia Ripinsky

I take this opportunity to thank 1971 President Charles R. Taylor for his invaluable assistance and also the officers and committee members who freely gave their time and their support during 1971.

Respectfully submitted,



Charles Moore  
Executive Secretary

CM:bp



REPORT  
of the  
EXECUTIVE SECRETARY OF THE SOCIETY OF PETROLEUM ENGINEERS OF AIME

The Society of Petroleum Engineers in 1971 showed growth in all areas --- membership, development, membership services, technical publications, and meeting programming --- while continuing to show financial stability. During 1971 the Society also began to operate under several programs designed to commit its members to new areas of social awareness.

PUBLICATIONS

JOURNAL OF PETROLEUM TECHNOLOGY (JPT)  
SOCIETY OF PETROLEUM ENGINEERS JOURNAL (SPEJ)

During 1971, more than 600 manuscripts were handled by the SPE Publications Department. The Society's two editorial committees (General Editorial Committee and Transactions Editorial Committee) approved approximately 45 percent of these papers for publication in either JOURNAL OF PETROLEUM TECHNOLOGY or SOCIETY OF PETROLEUM ENGINEERS JOURNAL.

Publication figures for JOURNAL OF PETROLEUM TECHNOLOGY and SOCIETY OF PETROLEUM ENGINEERS JOURNAL are listed below.

	No. of Papers	No. of Pages
JOURNAL OF PETROLEUM TECHNOLOGY		
Forum	10	23
Technical and Professional Papers	82	598
Transactions	28	237
SOCIETY OF PETROLEUM ENGINEERS JOURNAL		
Forum	2	5
Technical and Professional Papers	20	173
Transactions	25	217

JPT is mailed to all members of the Society as part of their membership dues. Prior to January 1, 1972, SPEJ was published quarterly and mailed free of charge to all members who requested it. Late in 1971 the SPE Board approved a plan changing SPEJ to a bi-monthly publication beginning with the February, 1972, issue and allowing the Society to initiate a \$5.00 per year subscription fee.

Net circulation for JPT in 1971 was 19,900. Circulation for SPEJ was 4,573.

## TRANSACTIONS VOLUME

Transactions Volume 251 will be published in May, 1972, and will contain 586 pages. This compares with 528 pages in 1970, and 614 pages in 1969. Price for the Transactions Volume will be \$7.50 (\$6.25 if paid with member's dues).

## SPE REPRINT SERIES

The Society's Transactions Reprint Series received a new name during 1971 --- the SPE Reprint Series --- and three revised and one new edition were issued. Revised editions were published during 1971 for Reprint Series No. 1 --- "Well Logging", No. 3 --- "Oil and Gas Property Evaluation and Reserve Estimates", and No. 5 --- "Well Completions". A new booklet, Reprint Series No. 10 --- "Thermal Recovery Techniques", was also completed during 1971 and was in the process of being printed at the close of the year.

## MONOGRAPHS

The Reservoir Engineering Aspects of Waterflooding by F. F. Craig, Jr., the third volume in the Society's popular Monograph Series, was published during 1971. The 141-page hardbound edition is available at a cost of \$4.75 to AIME members and \$12.50 to non-members. To date the Society's first Monograph --- Pressure Buildup and Flow Tests in Wells by C. S. Matthews and D. G. Russell --- has sold nearly 11,000 copies since its publication in 1967. The second SPE Monograph --- Hydraulic Fracturing by George C. Howard and C. R. Fast --- has sold more than 1,100 copies since its publication in 1970.

Other Monographs in various stages of preparation include:

Multiphase Flow in Pipe by Kermit Brown  
Profitability Criteria by Folkert Brons and Michael Silbergh  
Cementing by Dwight Smith  
Gas Well Performance by H. J. Ramey, Jr.

## SPE MEMBERSHIP DIRECTORY

The 1971-72 edition of the SPE Membership Directory contained 240 pages and included alphabetical, geographical and company listings of all SPE members. Production costs for the directory totaled \$12,062 and advertising income was \$7,551. The SPE Membership Directory is published each summer and is mailed free of charge to all members who request it.

## PETROLEUM ENGINEERING SCHOOLS BOOKLET

The 1971-72 edition of the Society's "Petroleum Engineering Schools in the U. S." Booklet was published at the close of the year. The booklet contained enrollment information and degree data on 27 colleges and universities that offer degrees or degree options in petroleum engineering.

## PREPRINTS

SPE members each year are provided with preprints of papers presented at both the Society's Fall Meeting and the various regional meetings held throughout the world. During 1971, a total of 180 preprints containing some 1,800 pages were published for SPE regional meetings. The preprint package for the 46th Annual Fall Meeting contained some 180 papers and totaled more than 2,200 pages.

## MEMBERSHIP

Total membership for the Society at the end of 1971 reached 18,327, representing an increase of 645 members over the final 1970 total. Corporate membership for 1971 was 17,574, with 753 student members.

	1968	1969	1970	1971
SPE Membership	17,026	17,516	17,682	18,327
New Member/Reinstatement Applications Received*	1,316	1,199	1,188	1,240
Members Lost (resignations, deaths, dropped owing dues)	1,065	1,042	1,240	1,104

\*Student applications and special applications are not included in this figure.

## MEETINGS

### FALL MEETING, REGIONAL MEETINGS

The largest Annual Fall Meeting in the Society's history was held during 1971, with 5,135 persons assembling in New Orleans to register for SPE's 46th Annual Meeting. The technical program included 150 papers and the technical-educational exhibits display contained 152 booths.

The Society also conducted 12 regional meetings during the year, with combined attendance at these meetings reaching 3,100 persons. A summary of the

attendance and the number of papers presented at the 1971 SPE Regional Meetings is listed below.

<u>City</u>	<u>Attendance</u>	<u>Number of Papers on Program</u>
Austin, Texas	102	19
Corpus Christi, Texas	173	9
Dallas, Texas	428	19
Chicago, Illinois	249	15
Midland, Texas	232	15
Anchorage, Alaska	347	16
Billings, Montana	231	18
Los Angeles, California	657	33
Charleston, West Virginia	206	12
Evansville, Indiana	118	12
Lubbock, Texas	131	15
Oklahoma City, Oklahoma	253	16

#### DISTINGUISHED LECTURER PROGRAM

The Society's seven Distinguished Lecturers for 1970-71 presented more than 105 talks before 53 of SPE's domestic sections. In addition, one of the lecturers presented six talks to the Society's sections in Europe and the Middle East.

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

The 1970-71 SPE Distinguished Lecturers were:

Edward M. Benson, Jr., Atlantic Richfield Co.  
 K. A. Blenkarn, Amoco Production Co.  
 C. R. Fast, Amoco Production Co.  
 R. G. Hamilton, Hamilton Well Log Consultants  
 Richard A. Morse, Texas A&M U.  
 John E. Sherborne, Union Oil Co. of California  
 James L. Wilson, Atlantic Richfield Co.

#### CONTINUING EDUCATION PROGRAM

##### VIDEO-TAPE COURSES

"Production Operations Course I --- Well Completions", the first in a series of seminar-type video-tape courses to be produced by the Society, was completed late in 1971 and offered to SPE Local Sections. The 10-hour course on

"Well Completions" is the first in a series of 10 courses the Society will record on all phases of production operations. Late in 1971 plans were finalized for the production of the second course in this series --- "Well Diagnosis" --- with the following SPE members agreeing to serve as instructors:

M. K. Strubhar, Mobil Research and Development Corp.  
 J. S. Blackburn, Schlumberger Well Services  
 W. John Lee, Humble Oil & Refining Co.

SPE Local Sections are continuing to use the Society's other three videotape courses. By the end of 1971, more than 1,100 SPE members in the U. S. and two foreign countries had completed one of the two courses in "Reservoir Engineering", and some 400 members had viewed the course in "Statistics" recorded in 1970.

#### TRAVELING LECTURE SERIES

Late in 1970 the Society introduced its Traveling Lecture Series, a program where local sections could obtain expert lecturers to teach live continuing education short courses on the various phases of petroleum production operations. During 1971, approximately 200 students in five SPE Local Sections completed these courses.

#### AWARDS

M. King Hubbert, research geophysicist with the U. S. Geological Survey, was awarded the AIME Anthony F. Lucas Gold Medal for 1971; Robert F. Bauer, chairman of the board of Global Marine Inc., was the recipient of the 1971 AIME Engineering Achievement Award; Ben A. Eaton, president of Universal Drilling and Engineering Consultants, received the 1971 AIME Rossiter W. Raymond Award; and two SPE members --- Thomas C. Frick, vice-president of the North American Producing Division of Atlantic Richfield Co., and Jan J. Arps, petroleum consultant --- were elected to Honorary Membership in the Institute. In addition, six SPE members --- Douglas M. Collingwood, James C. Gilbert, Albert B. Craig, Florin W. Floyd, Clifton M. Keeler and Benjamin E. Parsons --- were inducted into the Institute's Legion of Honor during 1971 in recognition of their 50 years of continuous membership in AIME.

During 1971, the time and place for the presentation of the DeGolyer Distinguished Service Medal was changed from the AIME Annual Meeting to the SPE Annual Fall Meeting. Consequently, two DeGolyer Medals were awarded in 1971.

The Society presented the following awards in 1971:

DeGolyer Distinguished Service Medal	Michel T. Halbouty, consultant Lincoln F. Elkins, Sohio Petroleum Co.
Lester C. Uren Award	Herman Dykstra, Standard Oil Co. of California Richard L. Parsons, Chevron Research Co.
John Franklin Carll Award	Fred H. Poettmann, Marathon Oil Co.
Cedric K. Ferguson Medal	A. Richard Sinclair, Esso Production Research Co.
Distinguished Service Award	Rupert C. Craze, Esso Production Research Co. H. Mark Krause, Jr., Humble Oil & Refining Co. John R. McMillan, Reserve Oil & Gas Co.

The Society again joined with the Petroleum Equipment Suppliers Association in 1971 in awarding scholarships to outstanding undergraduate students pursuing degrees in petroleum engineering. 1971 marked the first time in the five-year history of the scholarship presentations that a female petroleum engineering student was granted an award. Recipients of the PESA Scholarships in 1971 were: Sherry S. Zwiebel, The U. of Texas at Austin; Robert F. Meredith, Jr., Louisiana State U.; and Glenn A. Picquet, Texas A&I U.

#### LOCAL SECTIONS

##### TECHNICAL INFORMATION COMMITTEES

Several SPE Local Sections formed Technical Information Committees during 1971 under a plan approved by the Board of Directors in late 1970. The plan allows SPE sections to form TIC's to assist civic groups, governmental agencies and the news media on matters related to the exploration and production of petroleum and natural gas. Sections reporting the formation of Technical Information Committees during the year include: Golden Gate Section, Los Angeles Basin Section, Denver Petroleum Section, Oklahoma City Section, Illinois Basin Section, Southwest Texas Section, and Delta Section. Several other SPE sections used the Technical Information Committee concept during the year to conduct special programs of interest to their local communities.

The national Technical Information Committee (SPE Executive Committee) received an invitation in 1971 from Senator Henry M. Jackson, chairman of the Committee

on Interior and Insular Affairs, to assist the Committee in conducting a study on a National Fuels and Energy Policy. The SPE Board approved participation in this project in October, 1971, and at the close of the year the national TIC was studying methods by which the Society could best assist the Senate Committee.

#### NEW SECTIONS

One new section was added to the Society during 1971 and one section was dissolved. The London Petroleum Section, with approximately 200 members, officially became a part of the SPE organization on June 22 when Society President L. B. Curtis installed the section's first group of officers. During the same month, the SPE Board approved a petition to disband the Roswell Petroleum Section and to allow the Hobbs Petroleum Section to absorb the SPE members still living in Roswell.

#### SECTION VISITATION

SPE President L. B. Curtis, members of the Society's headquarters staff, and members of the Board of Directors visited a large number of the Society's local sections during the year, and attended the regional meetings held throughout the country. Officers from 41 of the Society's domestic sections attended Regional Officers Conferences in 1971 where SPE staff members and officers and directors meet with local section officers to discuss Society operations.

#### FINANCE

The Society's consolidated income for 1971 totaled \$1,148,205, representing an increase of some \$23,668 over the total for 1970. Income exceeded expenses by \$44,444 .

#### HEADQUARTERS STAFF

The Society's Headquarters staff consisted of the following persons as of December 31, 1971:

David L. Riley, Executive Secretary  
Mrs. Corky Barth, Secretary

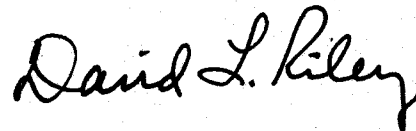
Dan K. Adamson, Assistant Executive Secretary and Publications Manager  
Tom Sullivan, Assistant Editor  
Mrs. Sally Wiley, Assistant Editor  
Miss Ann Gibson, Production Manager  
Mrs. Mary Jane Ellis, Preprints and Special Publications  
Mrs. Barbara Dray, Secretary  
Miss Glenda Snow, Secretary

Douglas L. Ducate, Activities Manager  
Ed C. Hendrick, Advertising Sales Manager  
John W. Martin, Exhibits Supervisor  
Mrs. Karen Lee, Activities Secretary  
Miss Anita Lee, Membership Secretary  
Mrs. Cheryl Peyton, Advertising and Exhibits Secretary

Stan R. Houston, Public Relations Supervisor  
Mrs. Frances Deuser, Secretary

Richard C. Vilven, Business Manager  
Mrs. Cathy Jones, Secretary-Bookkeeper  
Miss Martha Atkins, Receptionist  
M. C. Sirles, Mail Clerk and Printer

Respectfully submitted,

A handwritten signature in cursive script that reads "David L. Riley". The signature is written in dark ink and is positioned below the typed name.

David L. Riley  
Executive Secretary



REPORT  
of the  
W. A. A. I. M. E.

This continues the practice started in 1970 of WAAIME also reporting in the Annual Review and concentrates mainly on those activities conducted most closely in coordination with AIME.

Engineers for Tomorrow (Reported by Mrs. Julian L. Hayes, Chairman EFT)

At the Engineers for Tomorrow Annual Meeting in March 1971 the idea of the Curiosity Kit was introduced. There was considerable interest in the Engineers for Tomorrow working with and appealing to younger students than in the past. It was recommended that the Engineers for Tomorrow program go into the grade schools. The Missouri-Rolla Section had a Curiosity Kit-Metals that they had prepared for young students. During 1971 Curiosity Kits-Metals were prepared at the University of Missouri-Rolla. Each Section has received a kit. It is hoped that they will be taken to local grade and junior high schools and that there will be enough interest to order more. Curiosity Kits-Minerals have been prepared through the Montana-Butte Section. Like many things in life, it has taken longer to get this program going than anticipated.

Again in 1971 WAAIME helped to sponsor 15 geology students from Queens College, Queens, New York, in a field course in economic geology. This year they went to Michigan, Wisconsin, Minnesota and Northwestern Ontario visiting mines and plants. Four of the 15 geology students were women. This is one more positive way EFT can be effective. Hopefully, more of this kind of support can be given in the future.

The poster program -- enlarged reprints of the Careers-Mining and Minerals page from Mining Engineering -- a program started in early 1970, came to an end. This page is no longer being produced by the AIME magazine. While this program was not successful in all Sections, particularly in Sections in large urban areas, the posters served as a useful tool in small mining areas where there is close contact with the schools. Some Sections have had posters made (Texas - Houston) and others are trying to have poster contests. This is great. The more enthusiasm aroused for EFT, the better the program will be.

We look forward to 1972 as an EFT year when the Curiosity Kits-Metals and Minerals will be placed in many schools and a year when new ideas and programs will be started.

Liaison with the AIME Council of Section Delegates

Five of the six Regional Meetings of the AIME Council of Section Delegates were attended by at least one WAAIME representative who provided a special report on the Scholarship and Engineers for Tomorrow Programs. The sixth meeting would have been attended but for a communications failure on the part of the Regional Chairman. This "face to face" contact seemed to fill a need as the Section Delegates seemed surprised and unaware of the magnitude of the WAAIME contributions. The opportunity for direct exchange of ideas and recommendations provided an enriching experience that should strengthen the ties of the two organizations and increase cooperative efforts.

### Advanced Registration for Annual Meeting

To provide a service to the members of AIME and their WAAIME wives who would attend the Annual Meeting held in New York, February 26-March 4, 1971, the ladies were given an opportunity to pre-register for the first time. Thus, an AIME member could pre-register both himself and his wife at the same time with a single check. This procedure proved successful and will be repeated for the 1972 Annual Meeting in San Francisco.

### Scholarship Loan Funds

At the Annual Scholarship Loan Fund Meeting, 37 awards were granted in the amount of \$37,975, bringing the grand total to \$721,802.

### Members and Sections

WAAIME consists of 3,103 members in 46 Sections.