Eleventh Annual American Mining Hall of Fame Awards Presentation and Banquet

December 4, 1993

Sponsored by Mining Foundation of the Southwest

The Westin La Paloma, Tucson, Arizona
PROGRAM

Reception ...................... 6:30 p.m.
Banquet Dinner .............. 7:30 p.m.
Ceremony ....................... 9:00 p.m.

Welcoming Remarks: Herb E. Welhener

Introduction of Head Table and Other Honored Guests: Michael Arnold

Remarks by Congressman Jim Kolbe

Presentation of 1993 Inductees: Meyer Guggenheim and George Hearst
Presented by Herb Welhener

Presentation of 1993 Medal of Merit: Walter E. Heinrichs, Jr.
Presented by Martin Kuhn
Willard C. Lacy
Presented by John Lacy

Introduction of 1993 Recipient: Milton H. Ward
Introduced by Michael Arnold

Featured Address: Milton H. Ward

Adjournment
RECEPTION HOSTED BY

ASARCO Incorporated
Cyprus Copper Company
Empire Machinery Company
Henkel Corporation
Industrial Motor & Control, Inc.
Magma Copper Company
Modular Mining Systems
Peabody Western Coal Company
Purcell's Western States Tire Company
Bank One Arizona
E.L. Montgomery & Associates
Harnischfeger Corporation
Independent Mining Consultants
M3 Engineering & Technology, Inc.
Mintec, Incorporated
National Bank of Arizona
Phelps Dodge Corporation
The goal and purpose of the Mining Foundation of the Southwest is to promote public understanding and education related to the mining industry. Toward this goal, the Foundation has several philanthropic activities which are funded by donations and fundraising activities. The foundation has identified three projects in which to participate that will further the public understanding of mining:

1) The upgrade of the audio system at the mining exhibits at the Arizona Historical Society Museum in Tucson.

2) The continuation of the oral history project in conjunction with the Historical Society. This project interviews prominent members of the mining industry to preserve their impact on the history of Arizona.

3) The support of the Mining and Geological Engineering Department at the University of Arizona and the San Xavier Experimental Mine used by the mining and geology students at the University.

The Hall of Fame Awards Banquet serves a dual purpose in educating people about prominent persons associated with the mining industry, both present and past, and raising funds to continue the philanthropic projects of the Foundation.

The Mining Foundation of the Southwest was incorporated in 1993 with the combination of the Mining Club of the Southwest and the Mining Club of the Southwest Foundation. The Mining Club was started in 1971 and the Club’s Foundation began in 1983 with the first American Mining Hall of Fame Awards.

The Hall of Fame honorees, both living and deceased, now number 50. The plaques which commemorate their induction are on display at the Arizona Historical Society’s Museum at 949 East Second Street in Tucson.
Milt Ward began his mining career in 1955 when he joined the San Manuel Copper Corporation after earning a Bachelor of Science from the University of Alabama. His career has since taken him to Kerr McGee, where he rose to division engineer, the United Nuclear-Homestake Partners for Homestake Mining Company as general manager, to Ranchers Exploration and Development Corporation where he served as vice president of operations, and to Freeport Minerals where he advanced to president and Chief Operating Officer and was eventually the CEO of several of the Freeport-McMoRan divisions.

On May 14, 1992, Ward was appointed Chairman, President, and Chief Executive Officer of Cyprus Minerals Company, where he has undertaken a vigorous streamlining effort of the company as well as overseeing a plan of merger with Amax, Inc. Under Ward’s leadership, Cyprus has been refocused on expanding its core business in copper and coal and is now recognized as one of the largest mining companies in the world.

Ward is active with the American Mining Congress, having served as chairman and director from 1989 to 1992; he has received the Distinguished Member Award and the Saunders Gold Medal from the AIME and is the past president and a member of the executive committee of the Mining and Metallurgical Society of America.
Meyer Guggenheim, a consummate salesman, immigrated to the United States from Switzerland in 1848 and eventually built one of the world’s greatest mining and smelting companies. His career began selling stove polish, then soap, lye, and coffee, railroad stock investments and eventually imported lace and embroidery. His accumulated capital was then used to purchase two flooded mines in Colorado’s Leadville District that turned out to be bonanzas. Guggenheim’s next enterprise was the six-stack smelter of the Philadelphia Smelting & Refining Co. in Pueblo, Colorado, completed in 1889. The passage of the McKinley Tariff by the United States Congress in 1890 was, in part, an attempt by competitors to stem the supply of rich Mexican silver from Guggenheim’s smelter. The ultimate effect, however, encouraged Guggenheim to build smelters in Aguascalientes and Monterey, Mexico, from which he flooded the world’s silver market. In 1899, when the major smelters and mining industrialists combined to form the American Smelting and Refining Company, Guggenheim refused to join and, during the next year, not only out-produced the trust but also bought up a major interest in it. Eventually, five of Meyer’s seven sons were elected to the board of directors of the American Smelting and Refining Company and the trust would be most remembered for its association with the Guggenheim family.
George Hearst, the son of a Missouri farmer, came to California during the gold rush with no formal education and began his mining career in placer mining, unsuccessfully, at Hangtown, Jackass Gulch and then Nevada City. His fortune was made after he made a deal to purchase a one-half interest in the Gould and Curry mine followed by the purchase of a one-sixth interest in the Ophir mine for $3,000. These two mines proved to be the richest of all the Comstock mines. When Hearst sold his Comstock holdings, he reinvested his profits into the Ontario Mine in Utah, the Homestake Mine in Lead, South Dakota, and the Anaconda copper mine in Butte, Montana, and thereby became one of the richest men in mining. In 1866, he was appointed United States Senator from California and became one of mining’s most active spokesmen.

Hearst’s mining fortune also purchased the San Francisco Daily Examiner, the first block of what would become the Hearst Publishing Empire, headed by his son, William Randolph Hearst.
Walt Heinrichs was born in Superior, Arizona, and was raised in the mining camps of the Western United States and in the Philippines. He graduated from the Colorado School of Mines in 1940 as a geological engineer with a geophysics major, and, after service in the U.S. Navy's early Gulf Coast off-shore aerial magnetometer experiments, he worked as a geophysicist with the U.S. Bureau of Reclamation and then with Newmont Mining Corporation.

Heinrichs is one of the pioneers of modern mining geophysical exploration and is credited with being a key member of the United Geophysical Company team under Herbert Hoover, Jr., that discovered the Pima mine using geophysics in an area long considered to be "non-mineral." In 1955, he was the co-recipient of the AIME's Robert Peele Memorial Award for his part in a paper related to the discovery of the Pima Mine and in that same year received the Colorado School of Mines first Van Diest Award for outstanding work during the first 15 years following graduation.

In 1958 he co-founded Heinrichs GEOEXploitation Company which he still owns and manages. GEOEX continues to provide geophysical consulting services in water, energy, minerals and environmental matters.
Bill Lacy, the son of missionary parents, grew up in China, and first gained prominence as Chief Geologist of Cerro de Pasco Corporation's operations in Peru where he participated in the discovery of some of the most famous and productive copper mines in the world. In 1955 he began an academic career at the University of Arizona, and, as Head of the Department of Mining and Geological Engineering, brought an approach to teaching premised upon a grasp of the overall picture. In 1971 he took a new position as Foundation Professor of Geology at James Cook University in Townsville, Queensland, where he taught mineral economics, economic geology and geotechnical engineering as well as establishing and supervising an innovative work-study master's degree program. Dr. Lacy retired from full-time teaching in 1981 but continues an active practice of mineral consulting and lecturing for private clients, governments and educational institutions throughout the world.

Dr. Lacy was selected as the Essington Lewis Lecturer by AusIMM in 1971; the Henry Krumb Lecturer by SME/AIME in 1985, and elected as a Distinguished Member of the SME/AIME in 1987. In addition to more than 60 papers, monographs and books, Dr. Lacy did the background research, outline and site selection for the television series "Out Of The Fiery Furnace" for Australian television that has since been broadcast throughout the world.
### Board of Governors
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### 1993 Hall of Fame Committee
- Michael Arnold - Chairman
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- Herb Welhener
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### Foundation Manager
- Clare Roscoe
1983 Recipient
George E. Atwood
1984 Recipient
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1985 Recipient
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Plato Malozemoff
1988 Recipient
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1989 Recipient
G. Robert Durham
1990 Recipient
Harry M. Conger
1991 Recipient
Kenneth J. Barr
1992 Recipient
T S Ary

1983-1992 Inductees

Maxie L. Anderson 1934-1983
Williams Andrews Clark 1839-1925
James Douglas 1837-1918
James Stuart Douglas 1868-1949
Charles F. Fogerty 1921-1981
Antoine M. Gaudin 1896-1974
Wesley P. Goss 1899-1985
William C. Greene 1853-1913
John C. Greenway 1872-1926
Charles Debrille Poston 1825-1902

Hal W. Hardinge 1855-1943
Herbert C. Hoover 1874-1964
Daniel C. Jackling 1869-1956
Ira B. Joralemon 1884-1975
Henry Krumb 1875-1958
Waldemar Lindgren 1860-1939
Curtis H. Lindley 1850-1920
John William Mackay 1831-1901
Seeley W. Mudd 1861-1926
Rossiter W. Raymond 1840-1918
Robert H. Richards 1844-1945
Thomas A. Rickard 1864-1953
Louis D. Ricketts 1859-1940
Reno H. Sales 1876-1969
Fred Searls, Jr. 1888-1968
Arthur F. Taggart 1884-1959
William Boyce Thompson 1869-1930
Arthur Redman Wilfley 1860-1927

Medal of Merit Recipients
Ralph J. Roberts, 1989
Victor H. Verity, 1989
John S. Livermore, 1990
George D. Argall, Jr., 1991
Arthur A. Brant, 1992
William C. Epler, 1992
Mining Foundation of the Southwest