



# The AAPG/EMD NEWSLETTER

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Robert L. Fuchs, President  
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## Fuchs to Receive AAPG Award

EMD President, R. L. Fuchs, is the recipient of the AAPG Distinguished Service Award, bestowed on him for his singular longterm service to the Association. Fuchs will receive the award at the annual meeting in Calgary.

The best EMD technical presentations at the San Francisco meeting have been determined by the EMD Executive Committee. Clinton D. A. Dahlstrom, Chevron Resources Co., Greenbrae, Calif., received the best paper award for "Domestic Uranium Exploration and Other Perspectives."

The best poster award was shared by Stephen P. J. Cossey and Hal J. Frank, both of Conoco, Ponca City, Okla., for their presentation of "Uranium Mineralization in an Eocene Point Bar Deposit, South Texas."

## 1988 Technical Program-Calgary

The technical program for the AAPG 1982 annual convention in Calgary, June 27 through June 30, includes three technical sessions for EMD. All are on prime time, Monday the 28th and Tuesday the 29th. Poster sessions were originally scheduled, but so far only three abstracts have been received and as a result poster sessions for EMD have been cancelled. The EMD luncheon, an annual affair, will be held from 11:45-1:20 p.m. June 28th at the Rotary House, after the "all session" and before the first afternoon technical session. The luncheon will include an awards presentation, president's address, a guest speaker (to be announced). Approximately 150 people can attend.

The tar sands session will start at 1:30 p.m., Monday the 27th. Each paper is not to exceed 20 minutes, including discussion. This is to insure that all presentations begin and end at the same time throughout the convention. Also, this will allow all conventioners to move around at the same time and thus reduce noise levels during presentations.

The tar sands session will provide the membership and others with geologic reviews of various

Canadian and U.S. production pilot projects in sandstone as well as in carbonate reservoirs. A total of 10 papers will be presented. Sincere thanks are extended to Ross Lennox, chairman of the tar sands commodity committee, for his success in pulling in most of the papers. The oral presentations should be over by about 5:00 p.m., and will be followed by a short recap by the session chairman.

On Tuesday morning, June 29th, the session on geothermal, uranium and oil shale will begin at 8:30 a.m. with a 10-minute introduction. The session is heavy on oil shale (seven papers) and also includes one paper on uranium and three papers on geothermal. This session will end at noon with a short recap by the chairman.

The coal session is scheduled for the afternoon of Tuesday, June 29th, with nine papers (possibly 10), slated. The coal program is varied and should be of interest to EMD members.

I regret I had to step down as EMD Vice President, but I felt I was too removed from the activity in the U.S. The new Vice President, Ruffin Rackley, has been appointed and I wish him a successful remaining term.

Henri Wennekers

## President's Message

In the last issue of the EMD NEWSLETTER I said that the Division's officers would be concentrating on papers, publications and publicity this year. I would like to give you a progress report.

The publications area has received a major part of our attention during the past months. The AAPG publications department has suggested that the Division move ahead with a regular publication, perhaps in the form of a commodities quarterly. The EMD Council has accepted in principle the concept of a regular EMD publication, and is now taking steps to select an editorial group.

Initially, we will review past EMD articles to assemble an Energy Minerals Reprint Series for members and for non-members through the AAPG Bookstore. Future papers will continue to appear in the BULLETIN, but as volume increases, a separate section of the BULLETIN or separate publication may evolve.

We would like to hear from EMD members who would be interested in working with the publications group.

A lot has happened on the subject of meetings. We had profitable discussions with both the Geothermal Resources Council and Society of Economic Geologists which should lead to some joint meetings, courses and seminars in the years ahead. Both of these groups are interested in working more closely with EMD and we, in turn, feel our membership will benefit from the technical specialization offered by these two organizations.

The AAPG is planning a European Meeting in Geneva, Switzerland, July 1984, and Jack Pederson has been appointed Chairman of a committee to handle EMD participation in this meeting.

We are discussing the merits of a one-time separate Annual Meeting for EMD in 1985, a year when the AAPG holds its convention in New Orleans. Presumably, such a separate EMD Meeting would be held in one of the Rocky Mountain cities in order to draw upon a large EMD member population. The AAPG conventions have reportedly outgrown these cities. Please take a moment to comment on this, using the coupon included in this issue.

The initial indications on the new EMD organization by AAPG Section are good. Sectional Councillors will be better equipped to provide EMD programs for sectional and local meetings. We have already observed better contact with the membership.

On the economic side, the halcyon days of the energy industry are becoming just a bit overcast. Geologists working in uranium have found their programs severely cut or eliminated, and that pocket of our profession is now experiencing severe unemployment. Activity in geothermal energy is not at the levels of 2-3 years ago, although some changes in Federal leasing regulations may give a new boost to western exploration. These changing conditions underline the importance of professional development by the individual geologist. The Energy Minerals Division exposes AAPG members to the various non-petroleum energy commodities. In addition, the Division also affords geologists working in energy minerals the opportunity to associate with and learn more about oil and gas exploration. The current situation in uranium points up once again the dangers to the individual of that economically debilitating disease — geoprofessional myopia.

Robert L. Fuchs  
President

## Worth Repeating

New dimensions of energy minerals was the general theme of many conferences held during 1981. Not all EMD members were able to attend these functions, so highlights from several meetings are presented here.

At the Eastern Oil Shale Symposium held Nov. 15-17 in Lexington, Ky., studies of oil shales in the eastern U.S. indicated that large reserves of shale occur in a surface-minable configuration and offer attractive oil yields. The symposium was sponsored by the Kentucky Department of Energy and the Institute for Mining and Minerals Research, and will most likely become an annual event.

The Front Range Branch of the American Geophysical Union and the University of Colorado sponsored "Energy in the Mountain States: Resources and Problems," September 22 at the University of Colorado.

Willard Chappell of the University of Colorado, presented an overview of shale with these statistics: a 50,000 barrel per day oil shale plant (surface) would produce spent shale that would in 20 years, cover 1,200 acres to a depth of 200 feet. The same plant would consume 3,500-9,000 acre-feet of water per year and create at least 1,000 permanent jobs.

Keith Murray, EMD Rocky Mountain Section councillor summarized recent coal developments at the meeting. He said there is no longer talk of converting power plants to coal fired plants, and that recovery of natural gas from coal beds will be important in the future. Murray also discussed the water conservation advantages of coal-slurry pipelines by contrasting the amount of water it takes to move coal in a pipeline (1 ton of water/ton of coal) with the amounts consumed by either electric power plants (5 tons of water/ton of coal) or coal gasification plants (2 tons of water/ton of coal).

Speaking on geothermal, Tom Grose of the Colorado School of Mines said the Geysers geothermal field — a dry steam field — could supply the electrical needs of the entire city of San Francisco, and is a very high grade resource. He also said that geothermal exploration is similar to oil and gas in that a source, reservoir and trap are all required. Exploration for the two are mutually exclusive he said, as geothermal systems occur in terranes that are markedly different from those that contain oil and gas.

Simon Straus, director of Asarco, discussed South African strategic minerals at a San Francisco Commonwealth Club meeting. He said South Africa is often referred to as the Persian Gulf of minerals.

Atlantic City, New Jersey, was the site of the Atlantic Margin Energy Conference October 6. The EMD session, "Future Directions of Atlantic Mar-

gin Energy Development: Potential of New Sources of Energy and Latest Developments," was chaired by Donald F. Schutz, Teledyne Isotopes and Warren Manspeizer, Rutgers University. The session emphasized the diversity of energy resources on the Atlantic Coastal Margin. More than 120 attended the session.

"Alternate Energy Resources" was a special symposium presented at the annual meeting of the Gulf Coast Association of Geological Societies in Corpus Christi, October 23. Papers on coal, lignite, uranium and geothermal were presented.

The Department of Energy held its annual Uranium Industry Seminar in Grand Junction, October 21-22. More than 450 participated in the seminar which featured talks on present and future uranium market conditions and updates on the resource assessment programs. The major producers constituted the largest part of the industry contingent, but there were increasing numbers of utility and foreign participants, representing Japan, China (PRC), Great Britain, France and Germany.

Most papers will be published as an Open-File Report, available from the DOE Library at Grand Junction, Colo.

**May 80-88, 1988, Penrose Conference on Hydrodynamics and Geochemistry of Ore Generation in Sedimentary Environments** to be held at Lake of the Ozarks area, Missouri. Conveners: W. C. Kelly, J. H. Sharp, and D. E. White.

**June 6-11, 1988, American Nuclear Society, Annual Meeting**, Los Angeles. Contact: A.N.S. Headquarters, 555 N. Kensington Ave., La Grange Park, Ill. 60525. (312) 352-6611.

**June 86-July 1, 1988, AAPG-SEPM Annual Meeting** (See article by Henri Wennekers for details on EMD sessions).

**August 10-18, 1988, Cerro Prieto Geothermal Field, Meeting**, Guadalajara, Mexico. Field trips before and after to the La Primavera and Los Azufres geothermal fields. Contact: Ruben Zelwer, University of California, Lawrence Berkeley Laboratory, Berkeley, Calif., 94720. (415) 486-5560. Sponsored by the Comision Federal de Electricidad of Mexico and the U.S. Dept. of Energy.

## Upcoming Events

**Feb. 10-18, 1988, National Western Mining Conference And Exhibit**, The Fairmont Hotel, Denver, Colo. The oil shale session is scheduled for the morning of Feb. 12, with the theme of "Oil Shale - Past, Present and Future." Contact: Joseph Monarchi, Sterns & Rogers, (303) 758-1122.

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**Feb. 13-14, 1988, Society of Economic Geologists, Field Trip Through the South Texas Uranium District.** Stops at outcrops and at open-pit or solution mining operations in each of four formations: Goliad, Oakville, Catahoula, and Jackson. Fee: \$175. Contact: Allan Shaw, Box 9, Dallas, Texas 75271. (214) 385-5041.

**April 88-30, 1988, Annual Oil Shale Symposium**, Colorado School of Mines, Golden, Colo. Contact: Jim Gary, (303) 279-0300, X2950.

**May 18-18, 1988, Rocky Mountain Coal Symposium**, Park City, Utah. Field trip on the 14th and 15th to coal mine in Wasatch Plateau and an examination of depositional environments and stratigraphy of the Ferron Sandstone. Contact: Mr. Jerry Vaninetti, Norwest Resources, Salt Lake City, Utah.

## September Executive Committee Meeting Highlights

The EMD Executive Committee met in Denver on Sept. 28, 1981. Norb Cygan, Secretary-Treasurer reported that as of August 30, the EMD had 1,621 members, an increase of 203 members over the June 1980 figure.

Phil Goodell will study the possibility of geologists involved in nuclear waste disposal becoming members of EMD. He will also investigate the possibility of forming a section within EMD for those involved in nuclear waste disposal.

The Executive Committee approved the formation of an ad hoc committee to investigate the EMD's role for geologists in remote sensing. Bill Moran will look into this matter.

It was decided that EMD will not at this time initiate an annual report on drilling statistics in the coal, uranium and geothermal industries. This was in reply to a letter from Fred Dix.

It was decided that EMD officers would meet informally with the Society of Economic Geologists' Executive Committee at the GSA meeting in Cincinnati to discuss possible joint publications and meetings.

The possibility of EMD co-sponsoring the Rocky Mountain Coal Symposium to be held this spring was discussed. Keith Murray agreed to look into the matter.

Regarding a letter from Ron Hart proposing a commodity quarterly, President Fuchs will check with Ron as to what EMD papers are in the AAPG backlog and what EMD papers have been published in the last five years. He will also inform Ron of the comments of EMD officers and com-

mittee chairmen pertaining to publications. For instance, Wes Bourret would like to see a special publication each quarter. Ross Lennox would like a tar sands volume and he believes he could come up with four to eight papers per year.

Phil Goodell suggested a volume on uranium from the 1981 symposium on "Survival Strategy for the Eighties". He also suggested as a reference work a volume of review papers on uranium. He has a list of potential authors. Phil will contact Ron Hart directly regarding this volume.

President Fuchs requested the EMD officers, councillors and chairmen to consider the possibility of EMD having a separate convention rather than meeting with the AAPG in New Orleans in 1985.

Christine Turner-Peterson was introduced as the new editor of the EMD newsletter. Her address is: USGS, MS 916, Box 25046, Federal Center, Denver, Colorado 80225.

## 1988 Symposium On The Geology Of Rocky Mountain Coal

May 18-13, 1988: Park City, Utah

May 12-13, 1982 Park City, Utah

The AAPG Energy Minerals Division, the Utah Geologic and Mineral Survey, the Utah Geological Association, the U.S. Geological Survey, and the Colorado Geological Survey are sponsoring the fifth symposium on "Geology of Rocky Mountain Coal." Following the symposium will be a two-day field trip to the coal fields of central Utah where underground mine geologic studies and depositional modeling investigations will be reviewed.

Authors are invited to submit abstracts of papers on the geology of coal in the Rocky Mountain, Northern Great Plains, and Pacific Coast Provinces. The focus of the symposium will be on applied coal geology, associated case studies, and methodologies. Topics include depositional studies, stratigraphic analysis, mine development geology, geophysical methods, modeling, geostatistics, coal petrography, exploration techniques, coal quality and correlation methods.

Presentations will generally be limited to 20 minutes. Abstracts not exceeding one single-spaced typed page in length must be submitted by February 12, 1982 to be considered for presentation. Papers in a form suitable for publication must be submitted prior to March 17, 1982 to be included in the publication that will be distributed to symposium attendees. Abstracts and/or inquiries should be directed to: Jerry Vaninetti, Program Chairman, Norwest Resource Consultants, Inc., Suite 606 Newhouse Building, 10 Exchange Place, Salt Lake City, Utah 84111, (801) 364-5343.

## Committee On Nuclear minerals

The Committee on Nuclear Minerals is currently being organized, as provided by the recent EMD bylaw revision.

Committee activities will in part be determined by exterior circumstances, namely the marketplace. We are all aware that the nuclear 'ship' currently lies very low in the water, and it is anticipated that interest in symposia on uranium resources will be minimal. The second half of the 1970s was a period of intense data gathering in uranium geology by government, industry and academia. A pause in that activity is in progress. This Committee intends to take advantage of this lull by initiating an assessment of the state of knowledge concerning nuclear resources, the idea being that it will be easier to hit the slower moving target today than the faster moving one of several years ago. We will also be concerned with the preservation, dissemination, and access to information on uranium resources which has been generated recently.

You can help us with these efforts, and others, by contributing your ideas and/or work. Contact Philip Goodell, Dept. Geological Sciences, UTEP, El Paso, Texas, 79968.

Phil Goodell  
Chairman

## Fall Business Meeting Highlights

The EMD Executive Committee held its fall business meeting in Cincinnati on November 2, 1981, in conjunction with the annual GSA meeting.

Ruffin I. Rackley was designated as EMD Vice President to complete the term of J. Henri Wenekers, who resigned from that position. Under the new bylaws, the Vice President is also the President-elect. Therefore, Mr. Rackley will be designated as the sole candidate for president for the forthcoming year.

Jim Palmer, the councillor for the eastern section, reported that EMD had a symposium as part of the Eastern Section meeting at Evansville, Ind. last fall. The general topic of the symposium was geology of eastern coal. Palmer is in the process of writing to the authors to ask them to submit papers for consideration by the EMD for a symposium volume on eastern coal.

Bob Fuchs presented a report regarding a meeting with members of the Geothermal Resources Council at their annual meeting in Houston, October 26, 1981. In that meeting the need for a landmark volume on geothermal energy was suggested, since so many of the papers are scattered among various journals. The suggestion was

made that EMD and GRC jointly undertake the publication of such a fundamental reference work. This would be a reprint of articles published in GRC publications, the AAPG Bulletin, and other journals. The possibility of putting together a landmark volume on geothermal energy is being investigated. The volume would be as important to geothermal energy as Louis Weeks' volume "Habitat of Oil" was to oil and gas exploration.

Norb Cygan, Secretary-Treasurer, reported that for fiscal year ending June 30, income for Division was \$17,969. Expenses were \$24,085, with a net loss of \$6,116 for the year. There has been a quarter update since June 30, and the income for the quarter, which is primarily from dues, is \$3,368, with interest and dividends at \$473, for a total operating income for the first quarter of this fiscal year of \$3,847. Total operating expenses for this quarter came to \$4,186, for a net loss of \$339 for this quarter added to the \$6,116 loss for the year. As of June, the balance in the savings account was \$25,430 and is slowly being depleted. Cygan said a discussion was held in Denver concerning the loss in 1980 and proposals were made to study various possibilities of increasing income in order to eliminate this drain.

Wes Bourret's report, as Pacific Section councillor, recommended a cooperative effort with the Commonwealth Club. This is an energy study group composed of 13,000 members in Northern California. Bourret said they have a very active energy section and are currently in the process of publishing a series of publications on energy, which in many ways, parallels what the EMD is doing.

Bourret asked for encouragement and guidance regarding future field trips and seminars, i.e., the Geysers and a possible seminar with the Lawrence Radiation Labs at the University of California on the problem of waste management from nuclear plants. Fuchs suggested that Bourret work with Bill Berge, the geothermal councillor and Ted Beaumont, AAPG Science Director, to see if there is a possibility that EMD should be running some kind of field seminar on geothermal energy, or to see if that is better left to the GRC, or to investigate the possibility of doing something jointly.

and asked if this were in the province of the EMD. Fuchs said that although it represents a market for coal and heavy oil, oil shale, etc., the EMD is a geological group and synfuels goes beyond the parameters of geology.

Speaking for Keith Murray, Fuchs reported that Murray is working on the Rocky Mountain Coal Symposium, which is an ad hoc group that meets once every two years. Murray and Ralph Gray have set up a meeting in Park City, Utah, for May 12-15, 1982. It will be a four-day session with a possible field trip into northeastern Utah — probably the Book Cliffs area.

Jim Palmer introduced Dr. Heinz Damburger, Illinois Geological Survey. Dr. Damburger was asked to attend this meeting of the EMD to consider the possibility of some kind of coordination between the Coal Division of the GSA and the Energy Minerals Division. Palmer pointed out that the Coal Division is the other major organization involving coal in the United States. It was his feeling that some interaction between the Coal Division of GSA and the EMD would be very desirable. Dr. Damburger stated that although no discussion has been held on how such a relationship could be formalized there has been some thought given to the development of either one major publication or a sequence of publications on the coal fields of the United States. GSA Headquarters has indicated their interest in this type of project and Dr. Damburger felt that this could be an area where joint effort would be highly beneficial.

Fuchs directed Ralph Gray, Coal Councillor, and James Palmer, Councillor for the Eastern Section, to work with Dr. Damburger to decide the direction they might take and bring back a specific proposal to the EMD Executive Committee for approval.

The subject of a future EMD annual meeting at a location separate from the AAPG annual meeting was also discussed. It was pointed out that such a split would not be permanent and recurring and that the year the AAPG will be in New Orleans (1985) would be a good year. Fuchs said this meeting would probably be held in a Rocky Mountain city. It was the suggestion of the Councillors that the EMD membership be polled (in the EMD Newsletter) to determine if there is any interest in undertaking this project.

Fuchs read a letter report from Ann Marie Stanley, Councillor for the Southwest Section. Stanley reported on the results of her survey on whether or not the EMD should publish a quarterly publication on EMD commodities. The general opinion of those polled was that there are more than enough publications that deal with minerals or any scientific subjects.

Fuchs read a report from Mervyn Rogan, Canadian Councillor. Rogan's report addressed the subject of an EMD Journal. It was his feeling that this idea is a good one and felt it should be initially published on a quarterly basis.

Cy Creasei, representing the Society of Economic Geologists, reported that SEG and EMD have agreed to investigate exchanging information regarding the possibility of joint publications and meetings. Creasei said that, to date, SEG and EMD have agreed to exchange information regarding existing programs so that a determination can be made of areas of cooperation — cooperative work on field conferences, symposia, etc.

Fuchs reported that at the September meeting of the Executive Committee, there was a long discussion concerning outreach and a number of

ideas were suggested on improving the whole membership drive, i.e., more exposure at sectional meetings, membership blanks at technical meetings where EMD sessions are being held, etc. *All* of these suggestions are being taken up by Pat Scher, chairman of this committee.

President Fuchs discussed the proposed Energy Minerals periodical. Fuchs suggested that this could possibly be in the form of a Part II of the AAPG Bulletin and would appear either on a regular basis, or perhaps quarterly, and would contain papers on energy minerals topics. Fuchs said that the Advisory Council of the AAPG was strongly in favor of publishing this in the AAPG Bulletin instead of publishing a separate periodical.

Fuchs asked for further comment from the Councillors present. The Councillors discussed at length the proposed EMD publication following which it was decided that (1) EMD would continue to publish EMD-related articles in the AAPG Bulletin for the time being; (2) that President Fuchs be empowered to look into the position of Editor for the EMD papers and bring his recommendations back to the Executive Committee; and (3) that EMD put together an EMD reprint series of past EMD papers and that these be distributed to the membership and sold through the AAPG Bookstore.

## Winter Executive Committee Meeting Highlights

December 9, 1981, Denver

### 1988 EMD Officers and Councillors approved:

The following nominees were approved by the Executive Committee of EMD, for 1982:

President Nominee: **Ruffin I. Rackley**; Consultant, Denver, Colo.

Vice-President/President-Elect Nominees: **Philip C. Goodell**, University of Texas-El Paso, Texas; **Charles Berge**, Phillips Petroleum Co., Englewood, Colo.

Councillor — Eastern Section; Nominees: **John Avila**, Ashland Exploration Co., Russell, Ky.; **James E. Palmer**, Woodward-Clyde Consultants, Mattoon, Ill.

Councillor — Midcontinent Section, Nominees: **Stanley F. Gray, Jr.**, Pioneer Nuclear, Inc., Amarillo, Texas; **Arnold D. Buzzalini**, Mapco, Inc., Tulsa, Okla.

Councillor — Pacific Section, Nominees: **Weston Bourret**, Consultant, Belvedere, Calif.; **Donald F. Towse**, Lawrence Livermore Lab., San Jose, Calif.

Councillor — Rocky Mountain Section, Nominees: **D. Keith Murray**, Energetics, Inc., Denver, Colo.; **Sandra Feldman**, Consultant, Albuquerque, N.M.

**European Energy Conference:** Jack Peder- sen has been asked to study the possible contribu- tion of the EMD to a European Energy Conference to be held in Europe during July 1984.

**Hydrogeology:** Tim Kelly has been named by the Executive Committee to be chairman of a committee to investigate the role of water re- source geologists in the EMD. Members of the committee include Frank **Ethridge** and Henry Trapp, Jr. Interested persons should contact: Tim Kelly, 3225 Candelaria Rd., N.E., Suite B, Al- buquerque, N.M., 87107. (505) 884-0580.

**Geothermal:** A geothermal meeting of the Geothermal Resource Council will be held in 1983. EMD will participate with the GRC in joint tech- nical sessions.

**Uinta Basin:** The Uinta Basin field symposium has been rescheduled to spring 1982. Contact: Howard **Ritzma**, Utah Geological Survey, Salt Lake City, for information.

## Membership Poll - Separate EMD Meeting?

At the fall business meeting of EMD held in Cincinnati, a suggestion was made that since A.A.P.G. will be meeting in three southern cities in 1983, 1984, and 1985, consideration should be given to holding a separate EMD meeting in 1985, possibly in a Rocky Mountain or western city not normally a site for an A.A.P.G. convention. The EMD Executive Committee would appreciate members' opinions regarding this matter.\* Please take the time to fill out the coupon below and send it to **N. E. Cygan**, EMD Secretary-Treasurer, Chevron Resources, P.O. Box 4001, Golden, Colorado 80401.

\*This is **not** intended to be a permanent move away from meeting without parent AAPG!

I would like to see EMD hold a separate convention in 1985:

Yes  No

Suggested site \_\_\_\_\_

Field trip suggestions \_\_\_\_\_

Comments \_\_\_\_\_

I would consider serving on a convention committee:

Yes  No

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

Commodities of interest 1 \_\_\_\_\_ 2 \_\_\_\_\_