

The Hydrogeologist

NEWSLETTER OF THE HYDROGEOLOGY DIVISION OF THE GEOLOGICAL SOCIETY OF AMERICA

MAY 1992

Message from the Chairman

Dear Colleagues,

I speak for many GSA Hydrogeology Division members and other hydrogeologists when I confess that I attended few GSA meetings in the 1980's. My 1990 and 1991 attendances were prompted by membership on the Management Board. As hydrogeology expanded rapidly and became fragmented into numerous areas of specialization, my needs have been served increasingly by focused conferences and symposia sponsored by the American Geophysical Union, the Association of Groundwater Scientists and Engineers of the National Ground Water Association, the American Chemical Society, the International Association of Hydrogeologists, and other organizations. The competition among organizations for my attendance at Annual Meetings and specialty conferences has become severe. Whereas in the 1960's and 1970's the decision to attend the Annual Meeting of GSA was easily made, this is now not the case.

The Hydrogeology Division is the second largest division in GSA. It reached a membership of 2,014 in 1989. This compares with 875 a decade ago. At first glance, all would seem to be well for the Hydrogeology Division. Closer inspection of the membership record for the past ten years shows steady growth until 1989 followed by two years of decline: 1,951 members in 1990 and 1,877 in 1991. This compares with 5,370 members of the Hydrology Section of AGU and 17,700 members of the Association of Groundwater Scientists and Engineers in 1991. This latter organization is growing steadily, with a doubling since 1987 and no break in the trend. AGU membership has increased by 20% since 1987. A relative newcomer on the hydrogeology scene in the United States and Canada is the International Association of Hydrogeologists, which has had impressive growth in both countries. Given the increasing demand for water in North America, the increasing obstacles to augmentation of water supply through surface water diversions, and the increasing occurrences of groundwater contamination, it is reasonable to expect that the importance of hydrogeology in the service of society will continue to grow impressively for a long time and along with it will come greater demand for production

of hydrogeologists from our universities. It would seem that these are the best of all times for the Hydrogeology Division to flourish. The decline in membership, I believe, is a reflection of a malaise that warrants assessment.

There is no reason to believe that the decline in membership of the Hydrogeology Division of the past two years will reverse unless the Division institutes some changes. At this time the Division is an organization primarily of interest to the hydrogeologists of middle age and older. For those of us in these older age groups, GSA meetings are pleasant occasions to meet senior colleagues in our profession and reminisce about the good old days; however, as a venue for the younger generation to advance the science and practice of hydrogeology, most GSA meetings are of minimal interest when compared with many other conferences or symposia. One of my faculty colleagues at the University of Waterloo recently asked me why, when considering the various other annual and twice-annual meetings of hydrogeologic interest, he should send some of his hydrogeology grad students to GSA meetings. I was unable to think of an answer with substance.



John A. Cherry 1992 Chairman Hydrogeology Division

I conclude that the time has arrived for the Hydrogeology Division to assess its past and present circumstances and to identify a path for the 1990's. I have sought the opinions of a number of hydrogeologists on this matter and present below some of the main points or issues derived from these consultations. Consideration of this issue is an ongoing activity. Presented here are some preliminary points:

Annual Meetings: The quality of the hydrogeologic programs at the annual GSA meetings varies greatly; therefore, for hydrogeologists the Annual Meetings are very much a hit-or-miss affair. At present, Program Chairpersons appointed by the Division for the Annual Meetings have a very difficult job. Some problems are currently unresolvable because of the decision-making framework mandated by GSA. What may work well for other Divisions does not work well for the Hydrogeology Division. Hydrogeology in GSA faces competition unlike that faced by most other Divisions. An explanation for the variable quality lies in the relative lack of control of the Hydrogeology Program by the Management Board of the Hydrogeology Division. Without changes in the GSA organizational framework for Annual Meetings, major improvement in this situation is unlikely to occur. Management Board is looking for solutions.

Publications: Hydrogeology in GSA lacks adequate identity because members of the Division do not receive a groundwater-oriented journal as a benefit of membership. The journal issue has been a subject of discussion in the Division for more than a decade. GSA Council has recently approved, in principle, GSA sponsorship of a new journal that would have hydrogeology as a major component. This option, as well as potential for GSA Hydrogeology Division cosponsorship of a journal that has come into existence very recently, are two options now under review. The expectation is that the journal issue will soon be resolved by adoption of one of the two options.

Penrose Conferences: Penrose Conferences are a valuable forum for discussion of research problems of interest to the hydrogeologic community. Penrose Conferences offer an unparalleled opportunity for research hydrogeologists of various ages, backgrounds, and nationalities to exchange ideas and seek new research advances on focused topics of mutual interest in a communications environment unavailable at Annual Meetings or normal specialty conferences. The Chapman and Gordon Conferences offer a similar format; however, the Penrose Conference is the logical opportunity for discussion of hydrogeologic topics having a major element of geologic relevance. There have been very few Penrose Conferences sponsored by the Division in the past ten years. Penrose Conferences have been an ad hoc Division activity. Management Board concludes that it should accept responsibility for initiation of Penrose Conferences and will endeavor to make progress in this area before the 1992 Annual Meeting in Cincinnati.

Finances: The Division has little money available but in its present constitution has little responsibility to spend much money. As a general principle, this is not an unreasonable position for any professional organization. However, two areas in which Division funds are most relevant (the Birdsall Lecture Tour and the graduate student research awards) are

currently severely underfunded. The annual yield from the endowed Birdsall Fund is approximately \$1,700. Division, member fees contribute an additional \$2,700 annually. The total annual funding is therefore consistently less than \$5,000. At today's airline rates, a lecturer cannot visit many cities in North America for \$5,000. In recent years Birdsall Lecturers have had to spend many thousands of dollars over and above this amount to conduct an appropriate lecture tour. These lecturers have obtained the necessary supplemental funds from their institutions of employment, an embarrassing form of charity to the Division. The Division is faced with the real prospect of selecting a Birdsall Lecturer and then finding out that charity will not be bestowed by the lecturer's employer, and hence having to reduce the tour to a skeleton or cancel it. The graduate student research awards amount to about \$1,800 (based on \$1.00 per member) and are given to a variable number of students each year (last year, six students). These awards, of course, are gratefully received by the winning students. However, the amount of each award is hardly what is needed to make a significant impact on a student's wherewithal to do research. With the effects of inflation, one can only ponder the relative level that the awards would have to decline in order to warrant cancellation. The Division receives almost no monetary gifts and finds that it is not possible within GSA rules to earn significant funds from short courses sponsored by the Division (and commonly taught by Division members) at the Annual Meetings. During the past 10 years, accelerated by legislation such as Superfund and RCRA, environmental hydrogeology has become a billiondollar industry in North America. For the Hydrogeology Division of GSA to need charity to operate the Birdsall Lecture Tour and to grant almost trivial-sized research awards to graduate students is inappropriate. This is also an area where changes need to be made if the Division intends to reverse its slide in the hydrogeologic community.

The Future: The Management Board recognizes that the future of the Division is in question. The Board is pursuing some avenues that may result in an improved prognosis. However, the most important questions remain open for resolution. These questions pertain to the role that the Division should seek in the hydrogeologic community—at present the role is evolving from something that could be described as minor to one near inconsequential. What niche in the very large professional community of hydrogeologists should the GSA Hydrogeology Division seek to fill? How should the Management Board go about attempting to move the Division toward filling the niche? How can we attract the younger generations of hydrogeologists to the Division? We welcome comments from Division members on these issues, or any other issues that should be raised at this time.

Im Cherry

Minutes Hydrogeology Division 1991 Annual Business Meeting San Diego, California

Prepared by John F. Harsh Secretary-Treasurer

The 1991 business meeting of the Hydrogeology Division of the Geological Society of America was called to order by Chairman Paul Seaber at the conclusion of the Annual Luncheon. The meeting was held on Tuesday, October 22, 1991, in the Marina Ballroom E of the Marriott Hotel, San Diego, California.

Chairman Seaber introduced previous chairpersons of the Division, members, and spouses seated at the two head tables: John Harsh, Secretary-Treasurer; Kenneth Hollett, Program Chairman; John Cherry, Chairman-Elect; Joe Rosenshein, Past Chairman; John Sharp, GSA Liaison; Bill Wilson, Distinguished Service Award Recipient; Bill Dudley, Citationist for Distinguished Service Award to Bill Wilson; Claire Davidson, Distinguished Service Award Recipient, Bob Laney, Citationist for Distinguished Service Award to Claire Davidson; Keros Cartwright, Distinguished Service Award Recipient; Bob Farvolden, 1991 Birdsall Lecturer and Citationist for Distinguished Service Award to Keros Cartwright; Chris Neuzil, O. E. Meinzer Award Recipient; and Roger Wolfe, Citationist for the O. E. Meinzer Award. In addition, Chairman Seaber introduced Dave Stephenson, Division Liaison to Engineering Geology, and Alan Dutton, Editor of The Hydrogeologist.

The first item on the agenda was the introduction of Fred Donath, Executive Director of the newly established Institute for Environmental Education (IEE). Dr. Donath made a short presentation that explained the mission and programs of the Institute. He indicated why he wanted to meet with the Division, and his desire to have the Division take an active part in the first IEE-sponsored Annual Environmental Forum—to be held in conjunction with the GSA Annual Meeting in Cincinnati. Groundwater contamination is considered to be the most likely topic for this forum, and this topic clearly relates to interests of the Division.

Chairman Seaber announced that the Distinguished Service Award Committee had selected three recipients for 1991. The recipients were Bill Wilson, Claire Davidson, and Keros Cartwright. Bill Dudley presented the award to Bill Wilson; Bob Laney presented the award to Claire Davidson; and Bob Farvolden presented the award to Keros Cartwright. Bob Farvolden was introduced as this year's Birdsall Lecturer. John Cherry presented the Birdsall certificate to Bob. Then, Paul Seaber announced that next year's Birdsall Lecturer will be Shirley Dreiss of the University of California, Santa Cruz.

Chairman Seaber announced that the Division Management Board had decided to make Student Research Awards of \$200 each to six graduate students. The graduate students who received award certificates at the meeting were Karen Keith and John Field (Dr. Vic Baker accepted the certificate for John). The other recipients, Michael Foster, Teri Smith, Matthew Stuk, and Robert Young, will receive their certificates by mail.

Roger Wolfe read the citation for the O. E. Meinzer Award and presented the Meinzer Bowl and Certificate to Christopher E. Neuzil, who spoke briefly. [Ed. note: Roger Wolfe's citation and Chris Neuzil's remarks will be printed in an upcoming issue of the GSA *Bulletin*].

Joe Rosenshein requested that members observe a moment of silence in memory of those affiliates of the Division who had died during the previous year. They were Frederick K. Heller, Burton H. Marliare, Robert H. Nesbitt, Joseph F. Poland, Claude M. Roberts, and George Siple.

The Minutes of the 1990 meeting were approved as published in the April 1991 issue of *The Hydrogeologist*. John Harsh summarized the Division's 1991 financial activity as follows [Ed. note: data have been updated from 8/31/91 values reported at meeting to 12/31/91 values]:

Division Fund Balance 12/31/90 \$6,782.78 1991 Dues Income \$8,914.00 Total Resources as of 12/31/91 \$15,696.78

1991 Expenses: Printing and postage of ballots and newsletters; awards; student research grants and rebates; Birdsall Fund; Birdsall Lecturer expenses; luncheon tickets: \$10,935.80.

Fund Balances: Division Fund \$4,760.98 Award Fund \$6,266.24 Birdsall Fund \$28,310.69

Motion to approve Treasurer's report as read was offered by John Sharp and seconded by Darrell Leap.

John Harsh announced the results of the balloting for Division Officers: John Cherry, Chairman; Frank Schwartz, First Vice-Chairman; Leonard Konikow, Second Vice-Chairman. John Harsh continues a two-year term of office. He called upon members to volunteer their services for open committee positions in the Division and to participate in the program activities at the Sectional Meetings. He then introduced Edward E. Geary, who has been selected as Coordinator for Educational Programs to direct the very popular and well-received SAGE programs. Dr. Geary presented a brief summary of SAGE as GSA's flagship effort to make the public aware of science/earth relationships and to develop a partnering effort among the Divisions to infuse into pre-college students an enthusiasm for careers in geoscience.

Dave Stephenson, a member of the GSA Committee on Education, indicated the need to have the Division membership become involved in primary and secondary school education. He also indicated that the Engineering Geology Division is looking for ways to increase its membership and that it is considering a name change. Dave suggested the Hydrogeology Division become more involved in the activities of the Engineering Geology Division and, when possible, make an effort to cooperate closely with them on programs and meetings.

John Sharp, GSA's Council liaison to the Division, summarized the results of a questionnaire survey on Hydrogeology Publications printed in the September 1991 issue of *The Hydrogeologist*. He indicated that Art Sylvestor is the new Editor of GSA Bulletin and encouraged the membership to publish in GSA Bulletin and Geology. Jack also discussed the issue of publications and whether GSA needs another

publication. He indicated that it will be difficult to find an editor. A well-conceived plan will need to be implemented for a publication to be successful. Paul Seaber indicated that the DNAG volume on Hydrogeology of North America has been a great success and the best selling GSA publication of the DNAG series.

Ken Hollett, 1991 Technical Program Chairman, reported that the program for this year included three open discipline sessions, three theme sessions, two field trips, two short courses, and a full-day symposium.

Joe Rosenshein announced that the GSA Long-Range Planning Committee will meet again in May 1992 to review the basic mission, strategic objectives, and goals of the Society. This committee has asked the Division to prepare a report due at GSA headquarters no later than April 3, 1992.

Darrell Leap, Chairman of the Short Course Committee, reported that his committee will propose five short courses for the 1992 Annual Meeting in Cincinnati. The proposed courses are subject to GSA approval. Deadline for submittal of short course proposals to GSA is December 1, 1991. The Division will continue to support cash rebates of \$50 to student members of the Division who are the first to register for short courses.

Phil LaMoreaux, Chairman of the Fund Raising Committee, reported that he will continue to work toward increasing contributions to the Hydrogeology Division Award funds. He encouraged each member of the Division to contribute now.

Bill Back, Chairman of the Hydrogeology Division's Historical Committee, reported that the Division plans to sponsor a joint theme session with the History of Geology Division at the 1992 Annual Meeting. Richard Parizek and Darryll Pederson will coordinate the program with Don Hoskins of the History of Geology Division. Bob Laney is planning to publish the papers presented at the full-day symposium. In addition, Bill will lead an effort to record the history of the Division.

John Van Brahana circulated a questionnaire survey for members to indicate their interest in the North American Interest Group on the Hydrogeology of Bottled Mineral Water and Spas.

Joe Rosenshein announced the first call for papers to the American Institute of Hydrology conference to be held May 16–19, 1992, in Washington, D.C.

Chairman Seaber requested brief reports from the Sectional Representatives. Their reports are summarized as follows:

North-Central Section—Lon Ruedisili provided a detailed report on the activities of the Section and reported that he played an active role in stimulating interest in hydrogeology by having students, exhibitors, and participants from the private and industrial sectors make contributions as speakers on the program of the Section.

Rocky Mountain Section—Roy Williams reported on a Ground Water and Waste Disposal symposium held in Spokane, Washington. The symposium was jointly sponsored by the Cordilleran and Rocky Mountain Sections.

<u>South-Central Section</u>—Joe Yelderman indicated that the section will sponsor a symposium to include papers related to the effect of Hydrogeologic Controls on Contaminant Transport.

Southeastern Section—Dick Johnston reported that the 1992 Sectional Meeting will be held in Winston-Salem, North Carolina. There will be two discipline sessions, one on General Hydrogeology and the other on Contaminant Hydrogeology.

Chairman Seaber announced that he believed there were additional action items that needed to be considered by the Division: revision of By-Laws, marketing of the Division and the profession, nomination of members to Fellowship standing, planning for Penrose conferences, and discussion of Division priorities.

Prior to the transfer of power and authority to the new chairman, John Cherry, Paul Seaber announced that Darryll Pederson was selected to chair the new Graduate Student Research Grants Committee. John Cherry will appoint additional members.

The meeting adjourned for a special presentation, "Trials and Tribulations of a Hydrogeologist as a Hostage in Kuwait," by Paul and Gerda Seaber.







(L to R) Christopher Neuzil, 1991 O. E. Meinzer Award recipient; Hydrogeology Division Management Board at 1991 Annual Meeting in San Diego; Robert Farvolden, 1990–91 Birdsall Lecturer; and 1991 Distinguished Service Awardees: Keros Cartwright, Claire Davidson, and William Wilson.

\$50 Scholarship Awards to Early-Registering Students

1991 was the second Annual Meeting for which cash rebates of \$50 were awarded to the first two student members of the Hydrogeology Division to register for short courses sponsored by the Division. Gerardo Gariby of The University of Texas at El Paso registered July 1 for "Concepts, Strategy, and Software for Practical 3-D Contaminant Transport Modeling." Robert F. Lide of the University of Georgia registered August 29 for "Contaminant Hydrogeology, Protection, and Cleanup."

Hydrogeology Program and Sessions of Interest to Hydrogeologists, 1992 GSA Annual Meeting, Cincinnati, October 26–29, 1992

The upcoming annual meeting in Cincinnati has a variety of symposia, sessions, short courses, and field trips of interest to hydrogeologists. These include offerings not only from the Hydrogeology Division but also from related divisions and the Institute for Environmental Education. Here is the lineup for the fall:

Short Course

 Practical tracing of groundwater with emphasis on karst terranes (Sunday)—Quinlan and Alexander.

Hydrogeology Division Symposium

 Frontiers of chemical mass transport in contaminant systems—Chin and Schwartz, The Ohio State University.

Annual Environmental Forum

 Groundwater cleanup versus groundwater protection: where should the \$ go? (Sunday)—Donath, Institute for Environmental Education.

Theme Sessions

- Hydrochemistry and isotope hydrology of regional aquifer systems—Cheng, Wright State University.
- Hydrogeology, hydrochemistry, and groundwater contamination in the Midwest basin and arches region— Ritzi, Wright State University.
- Discovery in hydrogeology—heritage, wisdom and vision—Van Brahana, University of Arkansas.
- Environmental issues in urban settings—Vitek, Oklahoma State University.
- Consultants'/industries' innovative applications in environmental investigation—Ruedisili, University of Toledo.
- Advances in investigation characterization and monitoring of the geologic environment for waste disposal— Rockaway, University of Missouri.

Field Trip

 Karst and cave systems in the Stone River Group— Gilbert, Tennessee Division of Geology

Discipline Sessions

 Hydrogeology I and II and Hydrogeology Poster Session—Session chairs to be announced

The events at the meeting are tentatively scheduled to cover the entire period from October 26 to 29. The Hydrogeology Division luncheon, awards, business meeting, and awardees' reception will be held on Tuesday along with the Birdsall lecture by Shirley Dreiss. Be sure to keep watching for the Society's call for papers and the detailed schedule of activities. For further information contact Frank Schwartz at Ohio State University (614-292-6196).

1993–1994 Hydrogeology Division Annual Programs

1993 Annual Meeting in Boston

Warren Wood is in charge of the Hydrogeology Program at the 1993 Annual Meeting in Boston, Massachusetts. For information and suggestions concerning field trips, symposia, theme sessions, and short courses, contact Warren Wood, U.S. Geological Survey, WGS Mail Stop 431, Reston, VA 22092 (703-648-5875). Note these filing deadlines to GSA: field trips—June 1, 1992; short courses—December 1, 1992; symposia—January 2, 1993.

1994 Annual Meeting in Seattle

Steve Wheatcraft will head up the planning for the Hydrogeology Program at the 1994 Annual Meeting in Seattle, Washington. Please feel free to contact Steve (Desert Research Institute, P.O. Box 60220, Reno, NV 89506 [702-673-7393]) with your ideas as it is never too early to begin planning. Filing deadlines to GSA will be approximately June 1, 1993, for field trips; December 1, 1993, for short courses; and January 2, 1994, for symposia.

Don Siegel Selected as 1992–1993 Birdsall Lecturer

Don Siegel of Syracuse University's Department of Geology has been selected as the 15th Birdsall Distinguished Lecturer. Topics that Don offers for talks are "The effects of continental glaciation on groundwater chemistry: from dilution to pollution"; "The hydrogeology of wetlands: paradigm lost"; and "The geochemistry of an oil-contaminated shallow aquifer: environmental to geological implications." Abstracts will be given in the fall issue of *The Hydrogeologist*. He is willing to present not only the Birdsall Lecture but also one of several ancillary lectures in a classroom setting. Contact

Don to schedule a visit during his tour beginning next fall. As he is on leave this semester, the best way to contact him is to send a FAX note (FAX number 315-443-3363) to the department or to call him at home (315-471-2868).

In Memoriam

Stanley William Lohman died January 12, 1992. He had long served the hydrogeology profession and the GSA Hydrogeology Division. Lohman was Division Chairman in 1966 and received our award for distinguished service in 1985. He was born in Los Angeles, California, May 19, 1907, and received B.S. and M.S. degrees in Geology from the California Institute of Technology in 1929 and 1938, respectively. His career with the U.S. Geological Survey spanned 1930 to 1981. Lohman was author or coauthor of more than 70 reports and journal articles published by the U.S. Geological Survey, cooperating agencies, and professional societies. The benchmark paper "Ground-water hydraulics," was first published as U.S. Geological Survey Professional Paper 708 in 1972.

Mrs. Lohman has agreed that monetary gifts to the Hydrogeology Division in memory of Stan Lohman will be placed in the Hydrogeology Division Fund.

Call for Papers

Hydrogeology of Mineral Waters

The organizing meeting of the North American Interest Group on the Hydrogeology of Bottled Mineral Water and Spas will be held July 8–12, 1992, in Hot Springs, Arkansas, in conjunction with the meeting of the Commission on Mineral and Thermal Waters (CMTW) of the International Association of Hydrogeologists. Joint field trips and technical sessions are planned.

During the past several years the bottled-water industry in North America has made a significant comeback. Consequently, companies are making an increased number of requests for hydrogeologic information and recommendations. In great contrast to Europe, bottled mineral water has not received much professional consideration from either the hydrogeological or medical professions in North America. Hydrogeologists could contribute to public awareness of the benefits and costs of this water resource.

With this point of view, Edward R. Landa, John Van Brahana, and B. W. Zuurdeeg (General Secretary of CMTW) organized the North American Interest Group on the Hydrogeology of Bottled Mineral Water and Spas for hydrogeologists who are interested in the history of bottledwater use, its purported therapeutic value, and the hydrogeologic sources of the water used by the industry and those spas that make significant use of groundwater.

Please contact either Edward R. Landa or John Van Brahana for more information on the July meeting: Edward R. Landa, U.S. Geological Survey, 431 National Center, Reston,

VA, 22092, USA; John Van Brahana, Department of Geology, 118 Ozark Hall, University of Arkansas, Fayetteville, AK 72701. Contact Dr. B. W. Zuurdeeg, Department of Geochemistry, Institute of Earth Sciences, University of Utrecht, Budapestlaan 4, 3584 CD Utrecht, The Netherlands, for information about the Commission on Mineral and Thermal Waters.

Hydrogeology in Mineral Exploration

A symposium on Hydrogeology in Mineral Exploration will be given at the April 17–20, 1993, conference "Integrated Methods in Exploration and Discovery," sponsored by the Society of Economic Geologists, Society of Exploration Geophysicists, Association of Exploration Geochemists, and U.S. Geological Survey. The conference will be held in Denver, Colorado.

This meeting will provide hydrogeologists a unique chance to introduce exploration geologists to new concepts and techniques and to show what hydrogeology can do for them. If you have developed a hydrogeologic model that can help in the exploration for any type of mineral deposit, this is your opportunity to demonstrate its usefulness to the mining and exploration community. The theme of the conference is "integrated" methods in exploration, and that includes hydrogeology and paleohydrology as well as conventional geophysical and geochemical methods.

For more information contact Dr. Rick Sanford, U.S. Geological Survey, MS 905, Denver Federal Center, Denver, CO 80225 (303-236-1530).

GSA Sectional Hydrogeology News

North Central

The North-Central section meeting is to be held April 30–May 1 in Iowa City, Iowa. A symposia on hydrogeology of fine-grained tills is being convened by George Hallberg and Bill Simpkins. Seven papers report on research in Iowa and Wisconsin involving isotopic composition of groundwater, scale-dependent hydraulic conductivity, age dating, and importance of tills as confining layers. A 2-day field trip will study the environmental geology of the Big Spring groundwater basin in northeast Iowa. The trip will be led by Robert Libra and George Hallberg. For more information about the meeting call Bill Simpkins at (515)-294-4477.

Southeast

The Southeast section meeting was held March 18–20 in Winston-Salem, North Carolina. One theme session discussed the hydrogeology of southeastern USA. Another focused on the geology and hydrogeology of the Savannah River Plant. Hydrogeology was also displayed in a poster session. A 1-day field trip studied the geology of hazardous-waste management in the Triad area, an RCRA site with groundwater contaminated by a wood-processing industry. The trip was led by George Bain, Barry Nelson, and John Stewart.

Northeast

The Northeast section meeting was held March 25–28 in Harrisburg, Pennsylvania. One theme session discussed the hydrogeology of geologic processes in the central and northern Appalachians, and a second focused on the surfacewater and groundwater contamination and its geochemistry, modeling, evaluation, and treatment.

South-Central

The South-Central section meeting was held February 23–25 in Houston, Texas. A symposium convened by Regina Capuano included 10 papers on hydrogeologic controls on contaminant transport. A technical session chaired by Joe Yelderman and Ted Cleveland presented 11 papers of general hydrogeologic interest. C. E. Norman and Saul Aronow led a field trip showing active surface faults, flood-control structures, an operating landfill, effects of vertisols on house foundations, and other environmental and engineering geology aspects of the Houston metropolitan area.

Recent GSA Hydrogeology-Related Articles

Following are hydrogeology-related articles published in *Geology* and the GSA *Bulletin* during the past several months:

- Price, R. M., and Herman, J. S., 1991, Geochemical investigation of salt-water intrusion into a coastal carbonate aquifer: Mallorca, Spain: Geological Society of America Bulletin v. 103, no. 10, p. 1270–1279.
- Carrigan, C. R., King, G. C. P., Barr, G. E., and Bixler, N. E., 1991, Potential for water-table excursions induced by seismic events at Yucca Mountain, Nevada: Geology, v. 19, no. 2, p. 1157–1160.
- Guhman, A. I., and Pederson, D. T., 1992, Boiling sand springs, Dismal River, Nebraska: Agents for formation of vertical cylindrical structures and geomorphic change: Geology, v. 20, no. 1, p. 8–10.
- O'Connor, J. E., and Baker, V. R., 1992, Magnitudes and implications of peak discharges from glacial Lake Missoula: Geological Society of America Bulletin, v. 104, no. 5, p. 267–279.
- Rojstaczer, Stuart, and Wolf, Stephen, 1992, Permeability changes associated with large earthquakes: an example from Loma Prieta, California: Geology, v. 20, no. 3, p. 211–214
- Kenny, Ray, and Knauth, L. P., 1992, Continental paleoclimates from δD and $\delta^{18}O$ of secondary silica in paleokarst chert lags: Geology, v. 20, no. 3, p. 219–222.

History of the Hydrogeology Division

Over the next several issues information will be presented on the Division Chairpersons, O. E. Meinzer Awardees, Distinguished Service Awards, and Birdsall Lecturers who have served and been honored by the Hydrogeology Division since its founding as a Hydrogeology Group within GSA in 1958. In this issue: 1959–1970. Birdsall Distinguished Lecturers began in 1978, and the Distinguished Service Award was instituted in 1984.

Division	Annual
<u>Chairperson</u>	Meeting Location
George B. Maxey	Pittsburgh,
(acting)	Pennsylvania
George B. Maxey	Denver, Colorado
George B. Maxey	Cincinnati, Ohio
Joseph F. Poland	Houston, Texas
Philip E. LaMoreaux, Sr.	New York, New York
Allen Agnew	Miami Beach, Florida
Victor T. Stringfield	Kansas City, Missouri
Stanley W. Lohman	San Francisco, California
Frank Foley	New Orleans, Louisiana
John Harshbarger	Mexico City, Mexico
Charles V. Theis	Atlantic City, New Jersey
James J. Geraghty	Milwaukee, Wisconsin
	Chairperson George B. Maxey (acting) George B. Maxey George B. Maxey Joseph F. Poland Philip E. LaMoreaux, Sr. Allen Agnew Victor T. Stringfield Stanley W. Lohman Frank Foley John Harshbarger Charles V. Theis

Papers Cited in O. E. Meinzer Award (began in 1965)

- Tóth, Jozsef, A theoretical analysis of groundwater flow in small drainage basins: Journal of Geophysical Research, v. 68, no. 16, p. 4795–4812, 1963.
- 1966 McGuinness, C. L., The role of groundwater in the national water situation: U.S. Geological Survey Water-Supply Paper 1800, 1121 p., 1963.
- 1967 Stallman, R. W., Multiphase fluids in porous media—a review of theories pertinent to hydrologic studies: U.S. Geological Survey Professional Paper 411, p. E1–E51, 1964.
- 1968 Hantush, M. S., Hydraulics of wells, *in* Advances in Hydroscience, V. T. Chow (ed.): New York, Academic Press, v. 1, p. 281–432, 1964.
- 1969 Cooper, H. H., Jr., The equation of ground-water flow in fixed and deforming coordinates: Journal of Geophysical Research, v. 71, no. 20, p. 4785–4790, 1966.
- 1970 Stringfield, V. T., Artesian water in Tertiary limestone in the southeastern states: U.S. Geological Survey Professional Paper 517, 226 p., 1966.

Hydrogeology Division Organization _

1992 Management Board

Chairman

John Cherry, University of Waterloo

First Vice Chairman

Frank Schwartz, Ohio State University

Second Vice Chairman

Leonard Konikow, USGS-Reston

Secretary-Treasurer

John Harsh, Environmental Resources Management, Inc.

Past Chairman

Paul Seaber, Desert Research Institute

Division Liaison to Council

John M. Sharp, Jr., The University of Texas at Austin

1992 Committees

O. E. Meinzer Award Committee

Stanley Davis (Chairman), Shirley Dreiss, Martin Mifflin, John Bredehoeft, Christopher Neuzil

Birdsall Lecturer Committee

Leslie Smith (Chairman), Robert Farvolden (Coordinator), Shirley Dreiss (Lecturer)

Distinguished Service Award Committee

William Back (Chairman), Keros Cartwright, Paul Witherspoon

Nominating Committee

Mary Jo Baedecker (Chairman), Robert Farvolden, Olaf Pfannkuch

Joint Technical Program Committee

Frank Schwartz and E. Scott Bair (Chairmen), Ken Hollett, Warren Wood, Steve Wheatcraft

Short Course Committee

Darrell Leap (Chairman), Frank Schwartz, Warren Wood, Steve Wheatcraft

Penrose Conference Committee

Leonard Konikow (Chairman), John Cherry, Nari Narasimhan

Publications Committee

John Cherry (Chairman), Leonard Konikow, Frank Schwartz

Research Grants and Student Awards Committee

Darryll Pederson (Chairman), Noel Krothe, Don Siegel

Fund-Raising Committee

Philip LaMoreaux (Chairman), Lon Ruedisili, Stavros Papadopulos

Past Chairmen's Long-Range Planning Committee

Paul Seaber (Chairman)

Division Historical Committee

William Back (Chairman), Alan Dutton, Phyllis Garman, John Harsh, Darryll Pederson, Joe Rosenshein

Representatives to Other Societies

Joe Weihaupt, American Association for the Advancement of Science, Section W

Nari Narasimhan, Hydrology Division of American Geophysical Union (AGU)

Joe Rosenshein, American Institute of Hydrology (AIH)

Warren Wood, Association of Groundwater Scientists and Engineers (NGWA)

Tom Holtzer, GSA Engineering Geology Division Jane Quinlan, GSA Quaternary Geology and Geomorphology Division

William Back, U.S. Committee for the International Association of Hydrogeologists (IAH)

Sectional Committees

Cordilleran-No chairman named

North Central-Lon Ruedisili (Chairman)

Northeastern-Don Siegel (Chairman)

Rocky Mountain-Bill Woessner (Chairman)

South Central-Joe Yelderman (Chairman)

Southeastern-Richard Johnston (Chairman)

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