

March, 1985

BULLETIN

HOUSTON GEOLOGICAL SOCIETY

Volume 27

Number 7



HGS MARCH CALENDAR

MARCH 9, 1985

HGS Racquet Ball Tournament (see page 11)

MARCH 11, 1985 (Dinner Meeting)

Westin Oaks Hotel, 5011 Westheimer

Paul S. Horvath, Gulf Oil Company

"THE EFFECTIVENESS OF OFFSHORE 3-D SEISMIC SURVEYS: CASE HISTORIES"

Social Period - 5:30 PM, Dinner and Meeting - 6:30 PM

RESERVATION by name only, telephone **771-8315**. Must be made or cancelled by **noon, Friday, March 8.**

MARCH 11, 1985

HGS Golf Tournament (see page 13)

MARCH 16, 1985

HGS Field Trip (see page 5)

Damon Mound

MONTHLY CALENDAR (see page 17)

MARCH 20, 1985 (Luncheon Meeting)

Meridien Hotel, 400 Dallas

Gary L. Kinsland, University of Southwestern Louisiana

"BASEMENT STRUCTURE OF THE GULF COAST: INTERPRETATION OF GRAVITY ANOMALIES SUPPORTED WITH STRUCTURAL, MAGNETIC, AND SEISMIC DATA."

Social Period - 11:30 AM, Luncheon and Meeting - 12:00 Noon

RESERVATION by name only, telephone **771-8315**. Must be made or cancelled by **noon, Monday, March 18.**

MARCH 20, 1985 (Dinner Meeting)

Westin Galleria Hotel, 5060 Alabama

HGS International Explorationists

Arthur R. Green, Exxon Production Research

"THE GEOLOGICAL FRAMEWORK AND HYDROCARBON POTENTIAL OF SEDIMENTARY BASINS OF THE ARCTIC."

Social Period - 5:30 PM, Dinner and Meeting - 5:30 PM

Tickets must be purchased by **Monday, March 18.**

HOUSTON GEOLOGICAL SOCIETY

6916 Ashcroft

Houston, Texas 77081

771-8315

(Alternate phone: 771-5421)

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BULLETIN

Editor	Dietmar (Deet) Schumacher , Pennzoil Expl. & Prod. Co.	546-4028
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PRESIDENT'S COMMENTS

The annual AAPG meeting will be held in New Orleans March 24-27 this year and this should be an outstanding convention in every respect. The highlight of the opening session will be the presentation of the AAPG awards in which four of our members will be recipients. J. Ben Carsey will receive the prestigious "Sidney Powers Memorial Medal", "Honorary Membership" will be bestowed on Robert R. Berg and the "Distinguished Service" Award will be given to Thomas D. Barber and Anthony Resa. The Society takes pride in their accomplishments and extends its hearty congratulations.

Concerning the awards given at local, regional and national levels, one of the functions of the HGS Awards and Student Loan Committee is to nominate those deserving individuals to the Executive Board for consideration. The Executive Board then selects local awardees and recommends individuals for regional (GCAGS) national awards (AAPG) to the GCAGS Awards Committee.

The awards given by the HGS are Honorary Life Member and Distinguished Service Award. The GCAGS gives Honorary Membership and Distinguished Service Awards and the AAPG gives the Sidney Powers Memorial Award, Honorary Membership, Human Needs Award, Public Service Award, Distinguished Service Award and the Journalism Award.

There are a number of our members who are deserving of these awards and the only way they can be considered for these honors is for you to nominate them. The guide lines for consideration of candidates for the various awards are on file at the HGS business office for your use and guidance. Write up that qualified member and send your nominations to our Awards Chairman Rich Scattolini.

Finally to those members (myself included) who received calls from TTC Research of New York concerning the Boone Pickens talk before the Society; this poll was commissioned by Mesa Petroleum Company and not by the Houston Geological Society as some of the pollsters indicated. This matter was brought immediately to Mesa's attention and was corrected.

Have a Happy Saint Patrick's Day.

GERALD COOLEY
President

GOLF TOURNAMENT REMINDER

The annual HGS Golf Tournament will be held on **Monday, March 11, 1985** at the Kingwood Country Club. All details and entry forms were published in the February *Bulletin*. Contact Gary Wirey at 469-1874 for information.

CHECK YOUR NEW DIRECTORY

The November 1984 Membership Directory has arrived. Unfortunately, a few copies were bound incorrectly, resulting in some pages being upside down and backwards. Please check your directory thoroughly. If you have a defective copy, call Leslie at the HGS Office (771-8315) and she will send you a replacement.

PRICE SCHEDULE—HGS MARCH MEETING

Westin Oaks Hotel, March 11
Dinner..... \$18.00
Meridien Hotel, March 20
Luncheon..... \$14.00*
*Includes hotel parking if space available

HGS INTERNATIONAL GROUP

Westin Galleria Hotel, March 20
Dinner..... \$21.00
Admission to all International meetings is by **advance ticket purchase only**. Tickets may be purchased from representatives in the International departments of most companies or by sending a **check for \$21 and a stamped, self-addressed envelope to:**

Houston Geological Society
6916 Ashcroft
Houston, Texas 77081

Ticket distribution and receipts are handled by **Moin Hussain** and all inquires should be directed to him at **492-2149**.

SOCIETY CALENDAR FOR APRIL, 1985

Monday, April 8 Dinner Meeting
Westin Oaks, 5011 Westheimer
Speaker - Earle F. McBride, University of Texas
"Rules of Sandstone Diagenesis Related to Reservoir Quality."
Wednesday, April 24..... Double Presentation
Meridien Hotel, 400 Dallas - Luncheon
Wyndham Hotel, Greenspoint - Dinner
Speaker - Ernest A. Mancini, University of Alabama
"Paleoenvironments and Hydrocarbon Potential of the Upper Jurassic Norphlet Formation of Southwestern and Offshore Alabama."

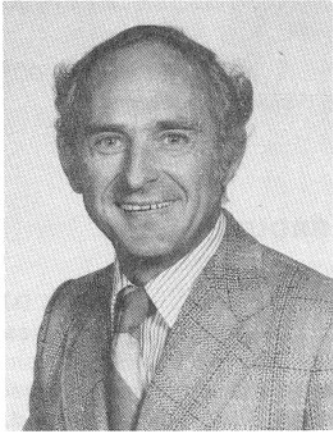
AAPG PONDS CHANGES TO CONSTITUTION AND BYLAWS

The AAPG House of Delegates will be considering a number of proposed changes to the AAPG Constitution and Bylaws when they next meet in New Orleans on March 24, 1985. Copies of the suggested changes have been published in the January 1985 issue of the *AAPG Explorer*.

The first set of changes was proposed by the Northern California Geological Society. These are based on the concept of eliminating gender bias because of the AAPG's increasing number of women members. The proposed change to the Bylaws is an addition to the Grievance Proceedings section and was recommended by AAPG's legal counsel. We urge all AAPG members to read these changes carefully and discuss them with your colleagues.

EVENING MEETING—MARCH 11, 1985

PAUL S. HORVATH—Biographical Sketch



Paul S. Horvath joined Gulf's research division in Pittsburgh in 1952. He transferred to Gulf Exploration and Production Company in 1955 where he has held a number of exploration positions and gained experience in exploration research, development work and exploration in the Mid-Continent area of the U.S., the Rocky Mountains, Southeast Asia, the Eastern Seaboard and the Gulf Coast.

Mr. Horvath assumed his present position, Manager of Exploration, in January, 1981. He is responsible for Gulf's exploration and development activities in South Louisiana and the Offshore (OCS) from Maine to Mexico.

Mr. Horvath received his B.S. degree in Earth and Planetary Science from the University of Pittsburgh in 1971. He is a member of the S.E.G., A.A.P.G., Southeastern Geophysical Society, New Orleans Geological Society, Petroleum Landman's Association of New Orleans, Mid-Continent Oil and Gas Association and the New Orleans Chamber of Commerce.

THE EFFECTIVENESS OF OFFSHORE 3-D SEISMIC SURVEYS: CASE HISTORIES

Gulf began to investigate 3-D seismic in the mid-sixties through Gulf Research and Development Company located in Harmarville, Pennsylvania. During the late sixties, modeling was used to simulate acquisition and processing. By the early seventies, Gulf had completed its first offshore 3-D seismic project.

Some of the advantages 3-D seismic has over 2-D are: It can help with the refinement of the structure and stratigraphic interpretation; it helps define the paleogeology; it can reveal details that otherwise are not apparent; it can help define reservoir limits through improved interpretation of the structure and hydrocarbon indicators; it is a means of obtaining subsurface control under surface obstructions, such as platforms, rigs, etc.; it provides the opportunity to construct profiles in any direction desired; and it lends itself to interactive interpretation.

Most certainly 3-D seismic should improve resolution. This in turn helps define the best possible location for both wildcat and development wells. Developing additional reserves with outpost wells and finding new reserves in untested fault blocks are also benefits of the improved and detailed seismic control. Utilizing 3-D provides a basis for making the development drilling program efficient—that is, only drilling the wells needed to drain the reservoirs efficiently. For these reasons the, the usage of 3-D seismic can be a cost-effective way of finding and developing hydrocarbons.

The results achieved in fifteen (15) 3-D seismic surveys that cover twenty-eight (28) blocks in the offshore Gulf of Mexico are reviewed.

DOUBLE PRESENTATION—MARCH 20, 1985

GARY L. KINSLAND—Biographical Sketch



Gary Kinsland was born and raised in Oregon. He attended the University of Rochester in New York where he received a B.S. degree in physics in 1969. He then attended the graduate school of geology at Rochester and received his M.S. degree in 1971 for his thesis work entitled "Refractive Index Ratios of KCl, NaCl and AgCl at Pressures Up to 77 Kb". In spring, 1974, he received his Ph.D from the University of

Rochester for his thesis entitled "Yield Strength Under Confining Pressures to 300 Kb in the Diamond Anvil Cell". From 1974 to 1976, he was Research Associate at the University of Rochester in high pressure research.

Dr. Kinsland became interested in geophysics as a Visiting Assistant Professor in Exploration Geophysics at Arizona State University from 1976-1977. He joined the University of Southwestern Louisiana as an Exploration Geophysicist in 1977. He continues in this role today and has had research funded in geopressured-geothermal resource evaluation; 3-D seismic acquisition, processing and interpretation over a geopressured-geothermal reservoir; and gravity and magnetic surveys in west-central Louisiana.

The topic of his presentation-megatectonics-has occupied much of his time during the past few years. He received the Best Paper Award and the A. I. Leverson Award for this presentation at the 1984 G.C.A.G.S. Convention in Shreveport, Louisiana.

BASEMENT STRUCTURE OF THE GULF COAST: INTERPRETATION OF GRAVITY ANOMALIES SUPPORTED WITH STRUCTURAL, MAGNETIC, AND SEISMIC DATA

The filtered gravity map of the forty-eight contiguous states by Hildenbrand et al (1982) illustrates the relationships of anomalies in the Gulf Coast more clearly than previous (unfiltered) presentations. Gravity anomalies are recognized which lead to the following hypotheses: 1) a Late Precambrian — Early Paleozoic rift passive margin underlies the Ouachita fold belt from the Marathons through the end of the exposed Ouachitas in Arkansas; 2) a Late Precambrian — Early Paleozoic transform passive margin underlies the buried Ouachita — Appalachian connection in Arkansas, Mississippi and Alabama; 3) a continuation of the rift passive margin underlies the Appalachians; 4) an early Mesozoic rift passive margin underlies southern Mississippi, south Louisiana and coastal Texas; 5) this Mesozoic margin has at least two transform offsets in southern Louisiana and southern Mississippi; 6) the Sabine Uplift, the Monroe — Sharkey Uplift and other features along the Atlantic Coastal Plain are buried portions of a late Paleozoic island are complex; 7) the Florida platform is accreted African — South American continental material. These hypotheses are supported by structural, magnetic and seismic data over some of the features.

INTERNATIONAL EXPLORATIONISTS GROUP EVENING MEETING—MARCH 20, 1985

ARTHUR R. GREEN—Biographical Sketch



Arthur R. Green is a research scientist at Exxon Production Research Company involved in managing integrated basin analysis projects on a worldwide basis and in research planning for the laboratory. Art received his B.S. in geology from Washington State University in 1957. After receiving a commission in the United States Air Force he entered flight school and graduated as a navigator. He then joined the Strategic

Air Command flying from various Arctic Stations, crisscrossing the Arctic Ocean many times until completing his service as a captain. He entered graduate school at the University of Oregon in 1960 and graduated (M.S. Geology) with honors in 1962. After graduation he joined Humble as an exploration geologist and worked in many areas of the United States and Canada. He later worked in various production districts in Southeast Texas.

In 1969 Mr. Green joined Exxon Production Research Company in Houston, Texas. During the first two years at EPR he was co-scientist in charge of oceanographic vessel conducting submarine geologic studies in the Caribbean and the Gulf of Mexico. In the following six years he traveled extensively, conducting a series of on-site basin analysis studies in Libya, Venezuela, Australia, and Norway (North Sea to Barents Sea). In 1978 he became a section manager of the Basin Analysis research group, involved in an integrated tectonics and sedimentation. While in this position he managed research projects and on-site integrated basin analysis studies in China, Argentina, S.E. Asia, the Gulf of Mexico, the U.S. Pacific Coast, northern Alaska, the Canadian Arctic Islands, and the Labrador Sea. Since 1983 he has been a research scientist, continuing to be involved in managing basin analysis projects and research planning.

Art Green has written a number of internal Exxon research reports on tectonics, crustal analysis and regional sedimentation, covering areas such as the Norwegian Offshore, the West and Southwest Pacific and the Northern Indian Ocean, the Pelagian Basin (offshore Libya), Venezuela, and the MacKenzie Delta of the Beaufort Sea. Mr. Green has contributed to many industry-wide publications, among which include AGU Memoir No. 20, Proceedings of the World Petroleum Congress, Paris, 1980 and London, 1983, proceedings of the Offshore Northern Sea Conference, Norway, 1982, and presentations at the International Union of Geodesy and Geophysics, Hamburg, 1983 and the William E. Pratt Memorial Conference on Future Petroleum Provinces of the World, December, 1984.

Mr. Green is a member of the JOIDES Drilling Safety Panel and a member of the new Ocean Drilling Program. He is a member of the Princeton University Advisory Council and the Ad Hoc Committee on the Antarctic as well as the AAPG Committee on Marine Geology. Art has completed a term on

the U.S. National Science Foundation Research Council. He was recently appointed as a member of the Sub-Committee on Arctic Research of the Inter-Union Commission on the Lithosphere and has been appointed as a member of the U.S. Geodynamics Committee. In addition, Mr. Green is a Fellow of the Geological Society of America where he serves on the Nominating Committee, a member of Sigma Xi, the American Association of Petroleum Geology, the American Geophysical Union, and the Houston Geological Society.

THE GEOLOGICAL FRAMEWORK AND HYDROCARBON POTENTIAL OF SEDIMENTARY BASINS OF THE ARCTIC

The Arctic Ocean basin, which separates the Eurasian and North American continents, is more than 4 km. deep, covers more than 13 million square kilometers, and contains over 30 sedimentary basins and many of the world's least understood major physiographic features. The shelves that surround the deep oceanic basin are some of the widest of the world. Nearly 60 percent of the Arctic Ocean is less than 1 km. deep, and over 80 percent of the ocean is less than 3 km. deep. The sedimentary basins of the Arctic contain thick sedimentary sections of Precambrian, Paleozoic, Mesozoic, and Tertiary sections.

The crust beneath the sedimentary basins of the Arctic has a long and dynamic history. During much of the Phanerozoic, convergent plate motion caused thrust faulting, magmatism, subduction and the accretion of deep marine sediments and suturing of exotic terranes to the continents around the Arctic. Sedimentary basins were formed within this complex crustal setting by large-scale rifting, shearing and compression. A disproportionate number of interior rift basins have formed in the Arctic with their large basement-evolved traps, widespread high-quality reservoirs, moderate to warm heat flow, good seals and effective plumbing systems.

Paleolatitudes have ranged from near the equator to the present polar position, with climates varying from tropical to arid to boreal. In a number of the sedimentary basins the positive paleoenvironmental factors which influence source rock deposition and reservoir quality have combined with the favorable tectonic setting of interior rift basin formations to create a number of productive sedimentary basins with exciting potential.

The presentation will systematically review a series of time slice maps from the late Devonian to the early Tertiary which depict the tectonic, stratigraphic and paleoenvironmental evolution of the sedimentary basins of the Arctic. This will be followed by an analysis comparing contrasting the basins and a summary of the known oil and gas occurrences in the Arctic to date.

Although the Arctic is one of the most climatically hostile and financially demanding areas of the world, it is also one of the most exciting and promising hunting grounds that remains to be explored.

VOLUNTEERS NEEDED FOR O.T.C.

The HGS will chair the Arrangements Committee for the Offshore Technology Conference, May 6 through May 9, 1985. Fifty volunteers are needed to monitor technical sessions for a half or full day. Volunteers will receive free admission to the technical sessions and exhibits, and free parking. Contact: Roger Simmons, GTS Corp., 874-9300.

AAPG ANNOUNCES 1985 HONOREES

The AAPG Executive Committee has approved the recommendations of the Advisory Council for honors and awards to be presented at the annual meeting in New Orleans in March of 1985. Those to be honored are listed below and include five HGS members (**bold type**). Congratulations!

SIDNEY POWERS AWARD — **J. Ben Carsey**

HONORARY MEMBERSHIP

John M. Browning, **Dr. Robert R. Berg**, Harry A. Miller, Jr.,
Robey H. Clark, Frank E. Kottowski

HUMAN NEEDS AWARD — Leonard F. McCollum

PUBLIC SERVICE AWARD — James A. Barlow

DISTINGUISHED SERVICE AWARD

Thomas D. Barber, Dr. James A. Hartman,
Dr. Norman H. Foster, James S. MacDonald,
Dr. Anthony Reso, William R. Moran

WALLACE E. PRATT MEMORIAL AWARD

BEST BULLETIN ARTICLE

David Russell Kingston, Carr P. Dishroon, Jr.,
Philip A. Williams

AAPG SEEKS NOMINATIONS FOR 1986 HONOREES

The American Association of Petroleum Geologists is seeking nominations for the following awards to be presented in 1986:

Sidney Powers Award
Honorary Membership
Human Needs Award
Public Service Award
Distinguished Service Award
Journalism Award

A letter outlining the merits of your nominees and a biographical sketch is required. These recommendations can be made any time for consideration prior to the annual meeting, March 24-27, 1985. Letters arriving too late for consideration this year will be considered next year. Anyone wishing additional information concerning these awards should contact Rick Scattolini at 688-6281.

RICK SCATTOLINI

Awards and Student Loans

HGS EXPLORER TROOP JOB SEARCH

"Members of Explorer Post 1700, sponsored by the Houston Geological Society, are looking for summer employment opportunities with a petroleum or earth-science related company. These people are sophomores and juniors in high school and have shown a career interest in the geosciences. Most members of the post plan to pursue geology as a major in college. These students are looking for any opportunity you may have to work in a geology-related field. They are willing to do basic tasks at minimal pay. If you have any such opportunities available, please contact George Kronman at 556-4452."

Thank you very much.

GEORGE KRONMAN

Amoco

HGS UNDERGRADUATE SCHOLARSHIP FUND

The Houston Geological Society and the scholarship fund committee take this opportunity to thank the following individuals for their generous contributions to the Undergraduate Scholarship Fund:

W. Dean Grafton

W. N. (Mac) McKinney, Jr.

James E. Werner

James Lee Wilson

Jerry A. Watson

Last year's Executive Board established the Undergraduate Scholarship Fund with the long term objective of funding at least one junior/senior level scholarship per year at each of six area universities. As you may recall from Gerald Cooley's *President's Comments* in the December *Bulletin*, the first two scholarships have been awarded and the project is indeed "off the ground." A successful launching is however only the first stage of any endeavor. The "H.G.S. Undergraduate Scholarship Fund" needs your help and your support. Your gift now will mean a great deal to a future student.

MERRILL HASS

Committee Chairman

PASSAGES

Willard M. Cottrell died on October 7, 1984. At the time of his death he was a Geological Specialist with Getty Oil Company.

Wayne V. Jones, II died December 10, 1984 at the age of 52. At the time of his death he was Vice-President of Union Texas Petroleum Corporation, in charge of exploration programs.

Donald W. Love died December 15, 1983 at the age of 55. He was Offshore District Geologist with Getty Oil Company at the time of his death.

ON THE MOVE

Professional and organization news may be sent to LaVerne B. Cobb, L. B. Cobb & Associates, 27 East Shady Lane, Houston, Texas 77063, or telephoned to (713) 780-0132. Announcements must be sent six weeks in advance of publication in the *Bulletin*.

Don LeVie has joined Highland Resources in Houston. He can be reached at 223-4901 ext. 314. Don was formerly an exploration geologist with Phillips Petroleum.

Pogo Producing Company has made several recent staff additions. **Bob Ellinghausen**, most recently with American Exploration Company, and **William F. Powell**, formerly with Amoco and most recently an independent geologist, have joined Pogo as Senior Exploration Geologists. **David Shomette**, a recent graduate from the University of Houston, has joined the Development Section. All can be reached at Pogo's 2919 Allen Parkway office, phone 630-4700.

Harry L. Horton has recently joined Reservoirs, Inc. as a Senior Staff Petroleum Engineer. He can be reached at 932-7183.

1984-1985 HGS UPCOMING FIELD TRIPS

FIELD TRIP COMMITTEE

Name	Company	Phone Number
Tridib Guha (Chairman)	Conoco Inc.	293-2995
Bill Baehr	Consulting Geophysicist	271-9131
Carl Meyertons	Exxon Co., U.S.A.	975-5005
Quentin Moore, II	Mesa Petroleum Co.	659-8585
Kari Rekoske	Superior Oil Co.	531-2361
Phil Salvador	Conoco Inc.	965-1274
Bennetta Schmidt	Cities Serv. O&G Corp.	850-6284
Dick Zingula	Exxon Co., U.S.A.	591-5447

UPCOMING FIELD TRIPS

- 6. Field Trip to Damon Mound March 16, 1985
 - 7. Geology of the Guadalupe Mountain Mid-April, 1985
 - 8. Ouachita Mountains Field Trip May 2-5, 1985
 - 9. Cretaceous Geology of the Llano Area April 19-21, 1985
- **Details of the trips will be published in the Bulletins****

HOUSTON CHAPTER OF GEOSAT

GEOSAT is an international group of geological and geologically related companies and individuals joined together to advance the use of remote sensing. Geosat has decided to establish regional chapters in addition to their regular corporate memberships. Houston needs to be represented. Whether or not your company belongs to Geosat, perhaps you should consider getting involved on an individual level. A Houston Chapter is being formed. Get in on the ground floor! Share ideas, information and contacts with your fellow 'remote sensors' in Houston. Contact Paul Oman at 486-1587 for more information.



HGS secretary Leslie Tolar at the keyboard of the Society's new IBM PC-AT computer. See the February *Bulletin* for more information about this computer.

**HGS FIELD TRIP
"FIELD TRIP TO DAMON MOUND"
INSTRUCTOR:**

**DR. STEVE SCHAFERSMAN & OTHERS
Date: March 16, 1985**

Visit a typical Gulf Coast salt dome with many points of interest to see! Warm spring, calcite crystals lining fractures, root casts, exotic block in caprock, casing from sulphur well, vertebrate fossils.

Registration Fee: \$15.00

(Field trip guide book, lunch and refreshments provided.)

Participants provide their own transportation. Please complete the pre-registration form and mail as soon as possible.

**Pre-Registration
"Field Trip To Damon Mound"**

Name: _____

Company: _____

Phone: _____

MAIL TO: Kari Rekoske, Superior Oil, 12401 Westheimer, Houston, Texas 77077

**REGISTRATION FOR LOWER CRETACEOUS
FIELD TRIP APRIL 19-21, 1985**

NAME _____

COMPANY _____

PREFERRED MAILING ADDRESS _____

BUSINESS PHONE _____

HOME PHONE _____

SINGLE _____ (\$230)

DOUBLE _____ (\$200) SHARE WITH _____

SMOKER _____

SERIOUS SNORER _____

We will try to match people of similar gender, smoking, and snoring persuasions unless they state who they wish to room with. Roomies are not confirmed until their registration fees are received.

MAIL TO: Phil Salvador
c/o Conoco, Inc.
P.O. Box 2197
Permian Bldg., Room 3052
Houston, Texas 77252

REVIEW OF EXPLORATION ACTIVITY

National Rig Count: January 9 — 2556; Year Ago — 2724

Houston Region: January 2 — 438

OFFSHORE GULF COAST

Arco Oil & Gas will drill a 16,500' **Miocene** wildcat on **Eugene Island Block 40**, offshore southwestern Louisiana. The # 1 OCS-G-5480 is 4 miles northwest of Miocene gas production at Eugene Island Block 57 Field.

Also off southwest Louisiana, Chevron U.S.A. has scheduled a 14,000' **Pliocene** test on **East Cameron Block 178**. The #1 OCS-G-5376 is 8 miles northeast of Pliocene gas/condensate production on Block 195.

Texaco U.S.A. has completed two **Miocene** discoveries at separate **Mustang Island** locations off the middle Texas coast. The #1 OCS-G-6048 on **Block 670** flowed at a combined rate of 18.7 MMCF/GPD and 14 BCPD from two lower Miocene zones between 6100' and 9200'. On **Block A-4**, the #1 OCS-G-6059 tested at a combined rate of 9750 MCF/GPD through two sets of middle Miocene perforations between 4150' and 5900'.

ONSHORE GULF COAST

Texas Gulf Coast

Arco Oil & Gas has staked location for the #4 CNG, a 13,500' **Vicksburg** test 1-1/3 miles northeast of Vicksburg production at Tabasco Field in **Hidalgo County**. Several recent deep development wells at Tabasco Field (11,500'-12,200') have been completed in the Vicksburg "10,100" sand with high flow rates (1112-2369 MCF/GPD). At the upper Vicksburg horizon the wildcat appears to spot in a large trough between the Tabasco Field and West Mission Field structures.

Farther north, in **Jim Wells County**, J. H. Robinson & Assoc. will drill a 9000' **Yegua** test 1-1/2 miles west of Frio production at Almond Field. The #1 Maley, et al. is 2-1/2 miles southeast of nearest Yegua production in the one-well Muy Solo Field. Structure at the *Textularia warreni* horizon is very irregular southeast dip with local down-to-the southeast faulting.

Also in **Jim Wells County**, American Petrofina has opened Solo Muerto Field at the #1 Gonzales, 1-1/2 miles north of Yegua production at Muerto Creek Field. Flow rate was 1803 MCF/GPD and 81 BCPD from **Yegua** perms at 7058-73'.

Santa Fe Energy will drill a 10,500' **Upper Cretaceous** test in **La Salle County** 3-1/2 miles northwest of Wilcox gas production at Maguellitos Field (Webb and La Salle Counties.) Primary target of the #1 Coquat is probably the Olmos, although nearest Olmos production (gas) is 14 miles west at Tri-Bar Field. Structure at the lower Wilcox horizon is regional southeast dip.

In **Bastrop County**, Republic Minerals has staked location for the #1 Heye, et al., a 9,900' **Sligo** test 2 miles southeast of Buda and Austin Chalk oil production at Paige Field. There is a 12,270' dry hole 1-1/2 miles to the southwest (Sligo at 9370'-10,600') but no Sligo production in the area. At the lower Edwards horizon the wildcat spots on regional southeast dip, immediately upthrown to an up-to-the-coast fault.

Mobil Producing will drill a 17,000' **Oligocene** test, the #1 I.P. Farms, in Chocolate Bayou Field, **Brazoria County**, currently productive from numerous Frio pays between 8660'

and 12,834'. A nearby lower Frio discovery, drilled by Phillips to 15,000', encountered no sands below 13,940'. At the *Nodosaria* horizon, the new deep test spots on the south flank of the large Chocolate Bayou Field structure.

Farther north, in **Montgomery County**, First Matagorda Corp. has scheduled an 11,500' **Wilcox** test, the #1 Bender Unit "A", 1-1/2 miles north of Wilcox gas production at Spring North Field. The Humble #1 Bender, a nearby dry hole, encountered generally tight Wilcox sands between 9,290' and 10,995'. At the Top Wilcox horizon the wildcat spots on the north flank of a positive structural feature.

TXO Production has completed a new **Yegua** gas discovery 2 miles southeast of Wilcox and Yegua gas production at Matthews Field in **Wharton County**. The #1-A Waddell flowed 1250 MCF/GPD from 7134-40'.

South Louisiana

Champlin Oil will drill a 9500' **Hackberry** test, the #1 State Lease 11324, 5-1/2 miles southwest of Starks Field (Miocene, Anahuac, and Frio) in **Calcasieu Parish**. Hackberry sand development varies greatly throughout the immediate area, with closest production found in North Vinton Field, 6-1/2 miles southeast. Structure at the Hayes marker is fairly steep southeast dip into an interdomal low.

In **Vermilion Parish**, McMcra Exploration has staked location for the #1 Noel, Jr., a 14,990' wildcat 1-1/2 miles northeast of Abbeville production in the one-well South Perry Field. Some possibly equivalent sands were logged in a dry hole 1 mile north of the new test. At the *Planulina* horizon the wildcat spots on a weak nose, generally on strike with the South Perry Field structure.

Davis Oil will drill a 12,500' middle **Miocene** test 3 miles southwest of Horseshoe Bayou Field (multiple Miocene pays) in **St. Mary Parish**. The #1 State Lease 11452 is located on fairly steep southwest dip off the large Horseshoe Bayou Field structure.

Badger Oil has staked location for a 13,500' wildcat 1-1/2 miles southwest of *Discorbis* production at the one-well Indigo Bayou Field in **Iberville Parish**. The #1 Dow Chemical will be evaluating **Anahuac** sands which, during 1981, produced more than 250,000 barrels of oil in the nearby Murphy Lake Field. Structure at the *Heterostegina* horizon is south and southwest dip.

Farther northeast, in **Tangipahoa Parish**, Union Oil of California has staked location for the #1 Simmons 42, a 12,500' lower **Tuscaloosa** test 2 miles northwest of lower Tuscaloosa production at Wilmer Field. The sand producing in this field is very poorly developed outside of the immediate field area. At the lower Tuscaloosa horizon, the wildcat spots on a very slight west-plunging nose.

MESOZOIC TREND

East Texas

Union Oil of California has staked location for the #1 Wilson, et al., a 12,000' **Glen Rose** test 3-1/2 miles east of Woodbine and Sub-Clarksville production at OSR Field in **Leon County**. Closest Glen Rose production is 5 miles northeast in Alabama Ferry Field. Structure at the Top Pettet is regional southeast dip.

In **Houston County**, Westland Oil Development will drill a 20,500' wildcat 8 miles north of Pearson Chapel Field, productive from the Buda, Edwards and Glen Rose. The #1 Richards Estate should reach the **Cotton Valley**, which is productive at Crockett Field, 9 miles east. The discovery well there produces from a thin lower Cotton Valley sand at 18,469-77'. Structure at the Top Pettet is regional south dip, but Jurassic structure is speculative due to very sparse control.

Farther north, in **Cherokee County**, Palmer Petroleum has staked location for the #1 Molar, an 11,200' **Travis Peak** test 3 miles northwest of Jacksonville Field, and located in an area of predominantly Woodbine production. At the Base of Massive Anhydrite horizon the wildcat spots on moderate northwest dip into a structural trough.

McMoran Exploration has completed the #1 Hooper as a new **Smackover** gas discovery 1-3/4 miles southeast of Smackover production at Ginger Southeast Field in **Rains County**. Flow rate was 14MMCFGPD (AOF) from perforations at 14,112-414' (OA). The discovery spots on the southeast flank of the Ginger Southeast Field structure at the Top Smackover horizon.

North Louisiana - South Arkansas

Amoco is drilling a projected 16,500' **Paleozoic** wildcat 3-1/8 miles northeast of Lillie Field (Cotton Valley) in **Union Parish**. The #1 Manning will probably penetrate about 5000-6000' of upper Paleozoic rocks (Morehouse or older Eagle Mills) generally consisting of a predominantly red bed sequence but with some possibly porous and permeable sandstones also present. Structure at the Top of Smackover is regional southwest dip.

About 75 miles northeast, in **Draw County**, Arkansas, Amoco has scheduled another **Paleozoic** test 39 miles northeast of Nacatoch production at Charivari Creek Field (Bradley County). The #1 Mahrens, et al., projected to 13,000', is 4 miles southeast of the Arkla #2 Crossett which penetrated 1200' of undifferentiated Paleozoic shales, dense sandstones and siltstones after topping the Paleozoics at approximately 6000'. Structure at the Top of Smackover is irregular southeast dip into the Desha Basin.

Mississippi

Home Petroleum has staked location for the #1 Ryan, a 15,000' **Smackover** wildcat 1-2/3 miles southwest of Cotton Valley production at Mechanicsburg Field in **Yazoo County**. A 14,315' dry hole 1 mile north tested non-commercial quantities of gas from the Cotton Valley, and logged about 300' of upper Smackover carbonates with varying degrees of porosity. At the Top of Smackover horizon the wildcat spots on the south flank of the Mechanicsburg Field Structure.

Three **Lower Tuscaloosa** discoveries were reported during the past month: two oil and one gas/condensate. In **Wilkinson County**, 2 miles north of Pond Field, Lester C. Duckworth completed the #1 Meyer from Lower Tuscaloosa perfs 13,040-50', flowing 3800 MCFGPD and 680 BCPD. Also in **Wilkinson County** and 7-1/2 miles northeast of Ashwood Field, Texaco completed the #1 Carter 28-10 for 312 BOPD and 622 MCGPD from the Lower Tuscaloosa at 12,804-26'. Farther east, in **Amite County**, Texaco opened Thompson Field at the #1 Anderson 1-15, flowing 528 BOPD and 1790 MCFGPD from Lower Tuscaloosa perfs at 11,091-102'.

BILL EISENHARDT
Geomap Company

AAPG ANNUAL CONVENTION NEW ORLEANS, MARCH 24-27

Housing and Advance Registration is now open for the 1985 AAPG ANNUAL CONVENTION, to be held in New Orleans, Louisiana, March 24-27, 1985. The theme for the meeting is "Geologic Jambalaya." Approximately 550 papers will be presented in technical sessions. The annual meeting of AAPG's Division—SEPM, EMD and DPA will be held in conjunction with the meeting.

Reservations must be made through AAPG on the official form available from AAPG, P.O. Box 979, Tulsa, Oklahoma 74101, 918/584-2555.

During the meeting, the services of an Employment Interviews Center will be available to facilitate arranging interviews between applicants and potential employers. If you are interested in this service contact: William Malin, Employment Interviews Chairman, Ensource Inc., 1515 Poydras Street, Suite 2440, New Orleans, LA 70112, 504/525-6418.

The Hilton Hotel will be the headquarters hotel for AAPG and the Marriott Hotel for SEPM. The technical sessions, exhibits, and the headquarter's office will be at the New Orleans Convention Center.

WOMEN GEOSCIENTISTS—AWG MEETING March 20, 1985

The Association of Women Geoscientists - Houston Chapter invites all interested women and men to attend their luncheon meeting on Wednesday, March 20. The meeting will feature:

SPEAKER: Fred J. Hilterman,
Geophysical Development Corporation

TOPIC: **Relating Gulf Coast Petrophysics to Seismic Lithology**

WHERE: Quality Inn Greenway Plaza
4020 Southwest Freeway at Wesleyan

SOCIAL PERIOD: 11:30 AM in the Director's Room
12:00 Noon

LUNCH: \$10.50 Members — \$12.50 Non-Members

R.S.V.P. To Nancy Pearce - 940-3647 (8 AM to 4 PM)
by Noon Monday, March 18, 1985

All no-shows and late cancellations (24 hours) will be financially responsible for the cost of the luncheon. Lecture attendance only - no charge to members, \$2.00 for non-members.

AWG JOINS AGI

The Association for Women Geoscientists, a national organization with some 1,000 members, is now one of the 17 member societies of the American Geological Institute. AWG's petition for membership was accepted at a meeting of AGI's Member Society Council last November in Reno.

AWG is an interdisciplinary organization of women and men geoscientists with 12 chapters and members-at-large in the U.S. and several foreign countries. Its goals are to encourage the participation of women in the geosciences, to promote their professional advancement and to exchange technical and professional information. It publishes a bi-monthly newsletter, *Gaea*.

Address of AWG's national headquarters is Box 1005, Menlo Park, California 94025.

BOOK REVIEW STRATIGRAPHY: FOUNDATIONS AND CONCEPTS

by George O. Chandlee
Pennzoil Exploration and Production Company

Stratigraphy: Foundations and Concepts edited by B. M. Conkin and J. E. Conkin (1984). 365 p. Published by Van Nostrand Reinhold Company, 135 West 50th Street, New York, New York 10020. Price, \$45.00.

Scientific literature has become so dispersed and voluminous that it is often difficult to find key papers that have formed the present framework within which modern geological science is practiced. Older works are especially, in most instances, inaccessible or very difficult to find and most attempts to delve into the history of geology can be arduous and time consuming. **Stratigraphy: Foundations and Concepts**, as one volume in the Benchmark Papers in Geology Series, gathers together excerpts from seminal works in stratigraphic geology that appeared from 1695 to 1933 so that important geologic literature is available in one volume. As stated in the Preface to the volume, the editors have attempted to gather together important geologic works "that exemplify the development of stratigraphy as the science and art of organizing the world's strata into a chronological succession". Because of the large quantity of stratigraphic literature available, careful and deliberate selection of papers to appear in the volume "meant eliminating many significant and interesting papers" but the book does present a balanced collection of papers to geologists having an interest in the historical development of stratigraphy as a formal and valuable scientific discipline.

The book is divided into five parts, each part having papers appearing within about a 50 year time span. Each part begins with a 6-10 page introduction containing editors' comments on papers within that part. In these commentaries, the editors summarize the contents of papers within each part and present the major observations or conclusions given in each paper. The text of the individual papers chosen follows; in most instances, due mainly to space limitations, only excerpts are reprinted and the editors have conscientiously noted where portions of the original text have been omitted.

Of the five parts in the book, the shortest is Part I and contains three papers. The longest part, Part III, contains 17 papers. In all, the book contains 38 papers written by 25 authors, either individually or as coauthors. The text of each paper, including illustrations, appears as originally printed and, especially in the older papers, can make reading slightly difficult because words are not spelled in modern English and reading may be somewhat slow.

Throughout the book, concepts and ideas developed by individuals such as Cuvier, d'Orbigny, Lyell, Murchison, Opper and Sedgwick appear originally as they did in print. In particular, Cuvier's *Essay on the Theory of the Earth*, Murchison's research on the Silurian system, and Opper's development of faunal zones make fascinating and delightful reading. Lyell's paper on the proposed division of the Tertiary into the Recent, Newer Pliocene, Older Pliocene, Miocene, and Eocene based on percentages of fossil faunal similarity as compared with the Recent fauna is not only interesting because of its historical importance but is also significant as an ingenious and creative attempt to finely subdivide the geologic time scale and create a more precise chronology for

correlation. To be sure, new discoveries and advanced technology have introduced refinements and modifications of all these concepts but, in overall form, they are valuable insights that still guide much of stratigraphic research and applications.

All geologists will find **Stratigraphy: Foundations and Concepts** to be a worthwhile addition to their personal library, especially those who maintain an active interest in the history of geology. The book, however, does not have any direct bearing on petroleum exploration and, for that reason, may have only minor appeal to geologists whose main concerns deal with the art and science of finding petroleum. Nonetheless, as a document which attempts to compile and present a summary of some benchmark papers in stratigraphy, none has done a more commendable job.

George O. Chandlee is a Research Geological Specialist with the Frontier Evaluation Group of the Pennzoil Exploration and Production Company in Houston, Texas. He received an A.B. degree in Biological Sciences from Rutgers University in 1975 and a Ph.D. in Geological Sciences from Cornell University in 1982. His dissertation research was based on field work conducted in the Taconic Foreland Basin in east-central New York State. Chandlee was previously employed as a Research Associate in the Basin Analysis Group of the Getty Oil Company Exploration and Production Research Center in Houston.

HOUSTON GEOLOGICAL SOCIETY SKEET SHOOT June 1, 1985

The Houston Geological Society will hold its third annual Skeet Shoot at the Greater Houston Gun Club on Saturday, June 1, 1985. (Please note the change in date from May 18, 1985.) This will be a bigger and much improved shoot with really nice trophies for all class winners and door prizes galore. Shooting will start at 8 a.m. for the early birds, and continue throughout the day with a BBQ lunch at noon and beer and soft drinks available. We will have the entire facilities of the club reserved for the Houston Geological Society for this occasion. In addition to the skeet fields, the trap fields, the Dove Tower, and a field for country doubles will be open. Here is a chance to really sharpen your shooting skills at all these games. The Skeet Committee has lined up numerous sponsors enabling us to award more and better door prizes than ever before. A special event this year will be a shootoff for a high quality shotgun. We will draw a winning score, and all the participants who shot that score, plus the next higher score and the next lower score will be in the shootoff. If, for example we draw a 37, everyone who shot 36, and 38 will be in the shootoff.

Mark the date on your calendar now and plan to attend. Watch the *Bulletin* for further details. Registration forms will be in the April and May bulletins.

DAVE VON TRESS
Entertainment Committee

ENTERTAINMENT CALENDAR, 1984-1985

EVENT	COORDINATORS	SPONSORS
Racquet Ball March 9	Stu Stouffer (Hunt Oil, 681-9742)	Cambe, Continental Labs, Exlog, Precision Well Logging, Prokop
Golf March 11	Gary Wirey (Wirey Resources, 469-1874) Neil Sivers (Sivers Seismic Service, 527-8131)	The Analysts, Baroid, Cambe, Core Lab, Data Log, Downhole Data, Dresser, Exlog, Geomap, Geomasters, Inc., GeoQuest, Geo-Lab, Geoservices, Inc., IDL, Inc., Lewis Seismic Exchange, Norpac Expl. Services, PGA & Assoc., P.I., Precision Well Logging, Ragsdale Weil Logging, Petty Ray Geophysical, Schlumberger, Seismic Data Search, Seismic Exchange, Southern Mud Logging, Stratagraph, Tex-World Geophysical, Tobin Research, Welex, West Loop Reprographics, Willisco
Bar-B-Q May 3	Debbie Haston (Jack Colle, 228-8221)	Jack Colle, Data Log Omni Petroleum Service Inc.
Tennis May 10	Gerry Anderson (Howell Petroleum, 658-4164)	Core Lab, P.I., Arrow Graphics Ragsdale Well Logging, Stratagraph,
Skeet Shoot June 1	Dave Von Tress (460-2712)	The Analysts, Baroid, Dresser, Exlog, Precision Well Logging
Trap & Skeet August 24 (Houston Geophysical Society Event)	Wendell Creech (Sonat, 940-4055)	Core Lab

HOUSTON GEOLOGICAL AUXILIARY

The Houston Geological Auxiliary was organized to encourage social relations among the members of the Houston Geological Society and to assist the society in any manner they might request. Any female geologist who is a member in good standing of the HGS or the wife or widow of any member in good standing of the HGS is eligible for membership in the auxiliary.

APPLICATION FOR MEMBERSHIP — HOUSTON GEOLOGICAL AUXILIARY

 (LAST NAME) (HUSBAND'S NAME) (YOUR NAME)

ADDRESS _____ ZIP CODE _____

HOME TELEPHONE _____ HUSBAND'S COMPANY _____

CIRCLE ONE **Current Member** **New Member** **Reinstated Member**

COMMENTS: _____

Dues are \$10.00 per year, payable upon application for membership.
 Make checks payable to: HOUSTON GEOLOGICAL AUXILIARY and mail with completed application form to:
 Houston Geological Auxiliary
 c/o Mrs. Sam M. Udden, Membership Chairman,
 6243 Longmont
 Houston, Texas 77057

(Dues must be received by July 1, 1985, if your name is to be listed in our yearbook.)

INVESTIGATION OF "SURFACE" FAULTS IN TEXAS GULF COAST REGION

Most of us are aware that, in Houston, some faults extend up to the surface of the ground, where they tend to be destructive and so need to be dealt with by geotechnical engineers and a few geologists. An **ad hoc** group of these people met a number of times last year to discuss the procedures used to investigate these wayward features and to recommend standards of practice in doing so. This had been requested by a developers' and builders' organization for the purpose of reminding its members of their legal responsibilities regarding the fault problem and to inform them how it can be addressed most effectively.

Recommended Standards of Practice for Investigating Geologic Faults in the Texas Gulf Coast Region

The following guidelines present appropriate levels of investigative effort to provide information necessary for making sound judgements concerning the impact of geologic faults on development projects. These guidelines outline a reasonable level of effort that is intended to satisfy the FHA-VA requirement for geologic fault studies. A greater or lesser scope of work may be appropriate for other types of projects.

Geologic fault studies are similar to floodplain studies in that they do not represent an exact or absolute warranty, but rather they provide a means for the management of risk.

The guidelines are divided into three levels of effort, termed phases.

Phase I

A Phase I investigation includes the following elements:

1. **Literature Review.** This includes a search for, and study of, published data on surface faults in the area of the site, including such sources as the U.S. Geological Survey fault maps, Houston Geological Society publications, professional papers, academic theses, and technical reports. It should also include study interpretation of topographic maps as well as maps and papers on subsurface geology.
2. **Remote Sensing Study.** Aerial photographs and false color, infra-red imagery, where available, should be studied. Airphotos of the area taken under various conditions and in several different years, including some taken prior to substantial disturbance or covering the natural ground surface, should be examined.
3. **Field Reconnaissance.** This includes a visit to the study area and vicinity by either a qualified geologist and/or qualified engineer to examine the area for physical evidence of a possible fault or faults. Physical evidence includes, but is not limited to, a) natural topographic scarps, b) soil layer displacements that may be recognized in ditches, creek banks and trenches, c) breaks in pavements, d) distress in existing buildings, and e) vertical offsets in fences.

In most cases, the Phase I study is sufficient to determine whether or not the probability of the existence of a fault on the site is high enough to warrant further study. However, in the event that after completion of the Phase I study, sufficient evidence is gathered to indicate that a fault may be present within the study area, a Phase II study is recommended.

Phase II

A Phase II study involves gathering new or existing subsurface data within an area determined in Phase I to potentially include a geologic fault.

The committee's product is presented below, for H.G.S. members' information and comments before being finalized. Please direct your comments to any of the committee members listed below, or to Mary L. Murdock of the H.G.S. Environmental Committee (681-2117). The ad hoc committee consists of Bill R. Elsbury (McClelland Engineers, Inc.), Carl E. Norman (University of Houston), Lynn J. Ratcliff (McBride-Ratcliff and Associates, Inc.), Robert M. Valentine (Woodward-Clyde Consultants) and DeWitt C. Van Siclen (Consulting Geologist). This report is submitted on behalf of the **ad hoc** committee and at the direction of the H.G.S. Environmental Committee.

DeWITT C. VAN SICLEN

Existing data can include logs of water, oil, and/or gas wells and data from previous investigations. These logs are effective in planning a geophysical borehole program and in some cases may eliminate the need for new geophysical borings.

Most investigations do require new geophysical borings. Borings are typically about 300 feet deep, except in those areas where specific data indicates shallow or greater depths are appropriate. The borings are drilled on a line about perpendicular to the anticipated surface trace of the fault, typically on 500 to 1000 foot centers. Additional borings may be required where stratigraphic conditions require further clarification. At least two borings are required to establish the presence or absence of a fault, one boring on either the upthrown or the downthrown side of the fault and one that clearly penetrates the fault. When fault penetration is not achieved, three holes must be drilled. Currently a downhole geophysical tool that records spontaneous electrical potential and single point resistance gives the best data for correlation of stratigraphy.

The relative vertical position of common sedimentary units revealed by the logs is analyzed to identify displacement that may be attributed to fault movement. If no evidence of displacement is established, the study may be terminated.

Phase III

If a geologic fault is found on the site, and its surface trace needs to be delineated, a third phase of investigation is required. A Phase III investigation utilizes electrically logged boreholes and/or topographic surveys to map the fault trace. Where a fault scarp with sufficient topographic relief is present, ground surface profiles surveyed by conventional techniques may be sufficient to locate the fault trace. In using geophysical borings, the fault should be penetrated with at least two borings, on one or more lines, about perpendicular to the fault trace, so that the surface position of the fault can be determined by upward projection from its known subsurface positions. The number of borings to be drilled will be determined by such factors as the local variability of subsurface layers, characteristics of the fault, and the degree of accuracy which the fault trace must be located. Criteria developed for siting structures near the fault should consider the surface area disturbed by the fault, the uncertainties in locating the surface trace of the fault, and the clearance needed to provide an appropriate margin of safety.

**5TH ANNUAL RACQUETBALL TOURNAMENT
AND PACMAN COMPETITION
MARCH 9, 1985**

The Houston Geological Society will hold its Fifth Annual Racquetball Tournament on Saturday, March 9, 1985. The location will be the same as the last four years; Courts Etc. Racquetball Club, 2620 Tanglewilde. The club is in the Woodlake Shopping Center near Westheimer and Gessner streets. The tournament is open to all H.G.S. members and family.

First round matches will begin at 10:00. All players will be notified, in advance, of their starting time. However, everyone is encouraged to attend all day. Also, last year winners will be seeded.

Each person should indicate level or skill on the entry form (please no sandbaggers). The tournament director may reclassify people if necessary. The tournament will be by single elimination with a consolation round. Round robin's will be used if any division has less than six players. Matches will be two games to 15 points with a tie breaker to 11. Penn racquetballs will be used this year.

Entry fees are \$15.00 per person and include court time, balls, lunch, refreshments, T-shirts and trophies. The deadline for signing up is Friday, March 1, 1985. The field may be limited so entry fees should be mailed as early as possible.

Sponsors for this year's tourney are Exlog, Cambe, Precision Well Logging, Prokop, Continental Labs, Schlumberger and Welco.

To enter please fill out the following:

NAME: _____

BUSINESS ADDRESS: _____

BUSINESS PHONE: _____

CLASS (circle one) A B C NOVICE

Entry fee: \$15.00 (attach check payable to HGS Entertainment Fund)

Mail to: Herb (Stu) Stouffer
 Hunt Oil Company
 2950 North Loop West
 Suite 900
 Houston, Texas 77092
 681-9742

**AAPG-SEPM-SEG
PACIFIC SECTION MEETING,
ANCHORAGE, ALASKA, MAY 22-24**

The 60th annual meeting of the AAPG-SEPM-SEG Pacific Section will be held May 22-24, 1985, at the Egan Convention Center in Anchorage, Alaska. The theme of this year's meeting will be "Alaska and West Coast Geology, Energy and Mineral Resources: Prudhoe Bay to Baja". A joint AAPG-SEPM-SEG session, the "North Slope Symposium" will span the three day convention. In addition, eleven field trips to Alaskan localities are planned. Contact: John Futch, (907) 561-5311.

**RICE UNIVERSITY
GEOLOGY SEMINAR SERIES**

The Department of Geology of Rice University invites you to attend their Wednesday afternoon geology seminars during the 1984-1985 academic year. Seminars are held in Room 106 of the Geology Building and they begin promptly at 4:00 PM. For further information call 713-527-4880.

**VENEZUELAN GEOLOGICAL CONGRESS
SEEKS ANECDOTES AND TALL TALES**

Organizers of the VI Venezuelan Geological Congress (October, 1985) are working on a book in the style of *The First Big Oil Hunt* by Ralph Arnold and others, a collection of personal reminiscences, building up an extraordinary saga. According to Anibal R. Martinez, they are attempting to update the work, sweat, and anecdotes entailed in the exploration for Venezuelan oil. For additional information, or to submit stories or photos, contact: Anibal R. Martinez, Sociedad Venezolana de Geologos, Apartado 2006, Caracas 1010, Venezuela.

TRADER'S COLUMN

The "Traders Column" makes free advertising space available to HGS members who have items available for *one time transactions*. So, if you are trying to find a good home for a rare set of books, or want to sell or buy some unusual business equipment, send your ad to the *Bulletin*. Items must be submitted six weeks in advance of publication.

**AAPG ANNUAL MEETING
DPA LUNCHEON, MARCH 26, 1985**

Mr. Peter Grace, CEO of W. R. Grace, will address the DPA Luncheon on Tuesday, March 26th during the Association of Petroleum Geologist, annual convention in New Orleans. The DPA is concerned with professionalism and ethics for the AAPG. Mr. Grace will speak on his findings of waste and mismanagement in the Federal Government and the recommendation which his commission made to President Reagan. The luncheon will be held at the Hilton hotel. Delegates to the convention may purchase tickets either when they preregister or at the registration desk in New Orleans.

J. PETER GRACE—Biographical Sketch



J. Peter Grace is Chairman and Chief Executive Officer of W. R. Grace & Co., which was founded in Peru more than a century ago. He has been Chief Executive Officer of Grace since 1945.

Under Mr. Grace's leadership W. R. Grace & Co. has grown and changed from a Latin American and steamship line heritage into a leading international company with worldwide interests in chemicals, natural resources and selected consumer services.

Peter Grace joined W. R. Grace & Co. in 1936 upon graduation from Yale University. In September 1945, after World War II, Mr. Grace was named President and Chief Executive Officer of W. R. Grace & Co. He was elected to his present position in May 1981. For several years Mr. Grace has been speaking to various business and education groups about economic and tax issues. President Reagan appointed Mr. Grace Chairman of the Private Sector Survey on Cost Control in Private Sector Survey on Cost Control in the Federal Government in March 1982. He is also a member of President Reagan's National Productivity Advisory Committee. Mr. Grace was born in Manhasset, Long Island.

**OUACHITA MOUNTAINS GEOLOGY AND MINERALOGY FIELD TRIP
May 2, 3, 4, 5, 1985**

Cost: \$225 (Based on 40 occupants in Hot Springs, Arkansas. (Double Occupancy) (Single room, add \$50). If you do not have a roommate, we will assign partners.

Includes: Bus transportation, hotel room three nights, four lunches, two evening meals, guidebook, and entrance fee to The Crater of Diamonds.

This trip will visit many of the spectacular outcrops in the Ouachita geosyncline which show folding, faulting, and selected mineral occurrences. Included are stops at the Crater of Diamonds where you can see Kimberlite dikes and try your luck at finding a diamond. Other stops will allow collecting of rare phosphate minerals, novaculite, quartz crystals, and a stop at Oscus Stanley's extensive crystal yard, where crystals can be purchased very reasonably. We will also visit Magnet Cove, where barite has been mined, the UMETCO vanadium mine, the Malvern Tripoli deposit, and much more. Evening talks by visiting experts will be held on two evenings.

Please complete the registration form and mail along with a check for \$225 (payable to HGS) and include a stamped, self addressed envelope to: C. T. Meyertons, c/o Exxon, 2424 Wilcrest, Houston, Texas 77042. Registration is limited, so get your reservation in early so you can enjoy the rocks, minerals, and springtime among the dogwood in Arkansas.

REGISTRATION FORM — OUACHITA MOUNTAINS FIELD TRIP

Name _____ Company _____

Address _____

Phone: Work _____ Home _____

**INSTITUTE FOR THE STUDY OF EARTH AND MAN
PUBLICATION LIST OF SYMPOSIA PROCEEDINGS**

Available from the SMU Press
P.O. Box 415, SMU, Dallas, Texas 75275:

**Proceedings of Symposia I, II, and III on Unconventional Methods in Exploration
for Petroleum and Natural Gas**, hard bound \$50.00 each

**Proceedings of the Symposium on Enhanced Oil Recovery
for the Independent Producer**, perfect bound \$40.00 each

Available from ISEM
P.O. Box 274, SMU, Dallas, Texas 75275:

Abstract Manual of the Symposium entitled **PETRO-PC '84, Microcomputers in
Petroleum Exploration and Production**, spiral bound \$10.00 each

Abstract Volume from the Conference on **Open Magmatic Systems**, tape Bound \$20.00 each

H.G.S. Golf Tournament

The annual HGS Golf Tournament will be held on Monday, March 11, 1985. Kingwood Country Club with its three 18 hole courses will again be the site of our tournament.

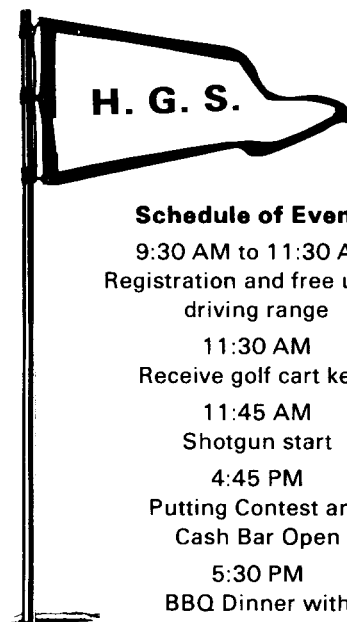
The tournament will be a four-man team, best ball tournament with both individual and team prizes. A shot-gun start at 11:45 AM using all three courses will be followed by a putting contest and an informal Bar-B-Que dinner with presentation of awards. A player may select his/her own foursome or be placed in a foursome by the tournament committee. The field will be split into three flights according to handicap and each flight will play on one of the three courses. **NOTE:** due to the limited number of available golf carts, entries will be limited to the first ninety (90) four-man teams entered (360 total golfers).

Entry fee will be \$40.00 for HGS members and \$50.00 for non-members. The deadline for entries will be March 8, 1985. The entry fee will pay for green fees, golf carts, driving range use with practice balls, locker room service, and the BBQ award dinner. So get your group together, come out and enjoy the competition, food, and the fun.

To enter, fill out the following entry blank and mail with your entry fee (payable to **HGS Entertainment Fund**) to:

Gary L. Wirey
Wirey Resources, Inc.
8102 Wycomb Dr.
Houston, Texas 77070
Phone: 469-1874

All entries received will be acknowledged by return phone call.



Schedule of Events

9:30 AM to 11:30 AM
Registration and free use of driving range
11:30 AM
Receive golf cart keys
11:45 AM
Shotgun start
4:45 PM
Putting Contest and Cash Bar Open
5:30 PM
BBQ Dinner with Award Presentation

Name _____

Company _____

Phone _____

	Foursome Members (Please Print)	Company	Handicap or Average Score
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____

Amount Enclosed _____

ORGANIC GEOCHEMISTRY 12th INTERNATIONAL MEETING

The 12th International Meeting on Organic Geochemistry will be held at the Nuclear Research Centre, Julich, Federal Republic of Germany, 16-20 September 1985. The scientific program will include the following topics.

- Organic Matter in Recent Sediments
- Generation and Migration of Oil and Gas
- Kerogen, Coal and Oil Shales
- Heavy Oils and Tar Sands
- Biological Marker Pathways
- Chemical Maturity Parameters
- Stable Isotope Applications
- Analytical Methods
- Modelling of Geochemical Processes

Additional information concerning this conference can be obtained from Dr. J. Rullkotter, Scientific Secretary, -KFA/ICH-5-, P.O. Box 1913, D-5170, Julich, Fed. Rep. of Germany.

PERMIAN BASIN-SEPM SYMPOSIUM AND FIELD TRIP

The Permian Basin Section-SEPM announces its annual symposium and field trip to the Guadalupe Mountains of West Texas and Southeast New Mexico. The title and theme of this year's trip is "Permian Carbonate/Clastic Sedimentology, Guadalupe Mountains; Analogs for Shelf and Basin Reservoirs". Field trip leaders include Dr. James Lee Wilson, Dr. Lloyd Pray, Dr. John Harms, Dr. Sal Mazzullo, and Mr. Carroll Hedrick.

The symposium is scheduled for **April 17, 1985** in Midland, Texas with the field trip following on April 18-20. For further information and registration, please contact the PBS-SEPM office, P.O. Box 1595, Midland, Texas 79702, (915) 683-1573.

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THIS IS A NEWLY REVISED FORM FOR JANUARY '85 AND BEYOND

**HOUSTON GEOLOGICAL SOCIETY'S
ANNUAL...**

**BARBEQUE
BABBEONE**

FRIDAY, MAY 3, 1985

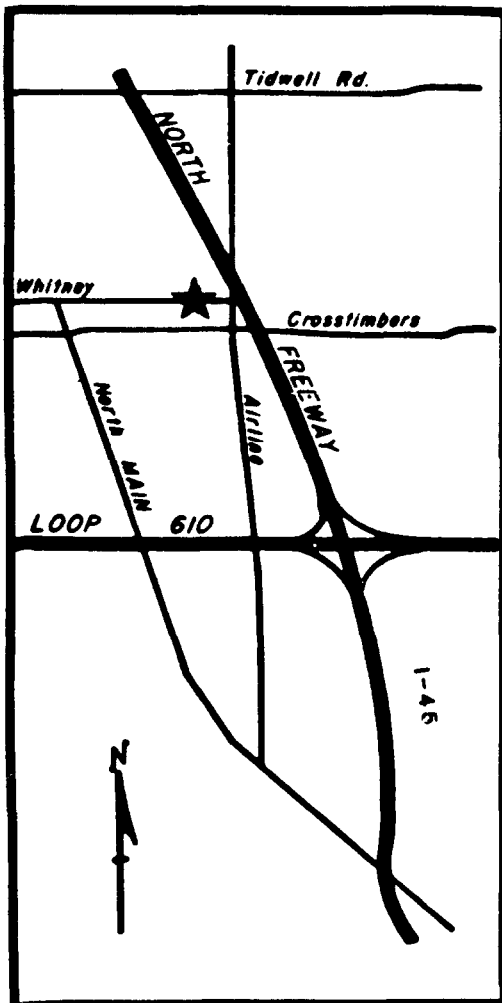
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The Houston Geological Society was founded in 1923 and incorporated in 1975. Its objectives are to stimulate interest and promote advancement in geology for this area, to disseminate and facilitate discussion of geological information, to enhance professional interrelationships among geologists in the area, and to aid and encourage academic training in the science of geology.

The *Bulletin* is published monthly, September through June. Subscription price for non-members within the contiguous U.S. is \$15 per year and \$30 per year for those outside the contiguous U.S. Members outside the contiguous U.S. will be billed additionally for air mail service. Single copy price is \$2.50. Subscriptions received after March 1 will be applied to the remainder of the fiscal year (ending with the June bulletin) and also to the following year. Claims for nonreceipt in the contiguous U.S. should be made within two months of the date of issue; claims from elsewhere within four months.

Communication about manuscripts and editorial matters should be directed to the Editor. Inquiries concerning advertising rates should be directed to the Advertising Chairman. Applications for membership in the Houston Geological Society may be obtained from the Society office, 6916 Ashcroft, Houston, Texas 77081.

COVER PHOTO

(a) Filtered gravity map of the 48 contiguous states produced by Hildenbrand *et. al.* (1982). (b) The map cut and recorrelated so that gravity signatures of major features, such as the Central North American Rift System, are aligned. These maps were published in color on the cover of the August 28, 1984 issue of *EOS*. Cover courtesy of Gary L. Kinsland, University of Southwestern Louisiana.

MARCH

CALENDAR of EVENTS

1985

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1	2
3	4	5	6	7	8	9
	← AAPG Business Side of Oil & Gas → Los Angeles, CA					HGS RACQUETBALL TOURNAMENT Courts Etc.
10	HGS DINNER 11 MEETING P.S. Horvath Westin Oaks Hotel HGS GOLF TNMT. Kingwood Country Club	12 Crude Club Whitehorse Cellar 878-7167	13 UH Alumni Petroleum Club	14	15	16 HGS FIELD TRIP Damon Mound
17	18	19	20 AWG Luncheon Book Cliffs Film Quality Inn Greenway Plaza HGS INTL. DINNER MTG. Arthur Green Westin Galleria Hotel	21 SIPES Luncheon Petroleum Club 651-1639	22	23 AAPG Conferences: Petroleum Formation/Occurrence New Orleans, March 20-22 Isotopes and Evol. Sedim. Basins New Orleans, March 22-24
24	25	26	27	28	29	30
	← AAPG Annual Convention → New Orleans, LA					
31		SPWLA Downtown Westside 780-4545 972-6972				

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In order to be eligible for active membership, an applicant shall: (1) have a degree in geology or an allied science from a recognized college or university and shall be directly engaged in the application of geology, or shall (2) have been engaged in geological work during at least the preceding five years.

In order to be eligible for associate membership, an applicant shall: (1) be actively engaged in geological or earth science work, or (2) be a student and have completed two years of college and be enrolled in geology or a related science in a recognized college or university granting degrees in earth sciences, or (3) be an administrative officer of a company directly involved with the application of the science of geology.

PLEASE PRINT

DATE _____

LAST NAME FIRST INITIAL

To the EXECUTIVE BOARD:

I hereby apply for ACTIVE ASSOCIATE membership in the HOUSTON GEOLOGICAL SOCIETY and pledge myself to abide by its Constitution and Bylaws.

Signature: _____

This application must be endorsed by two active members.

Name (print): _____ Signature: _____

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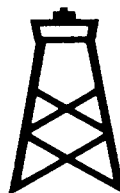
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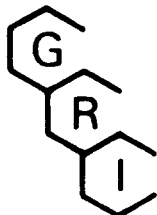
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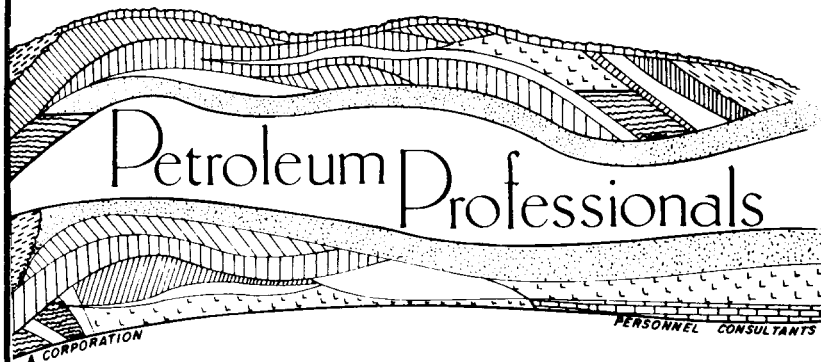
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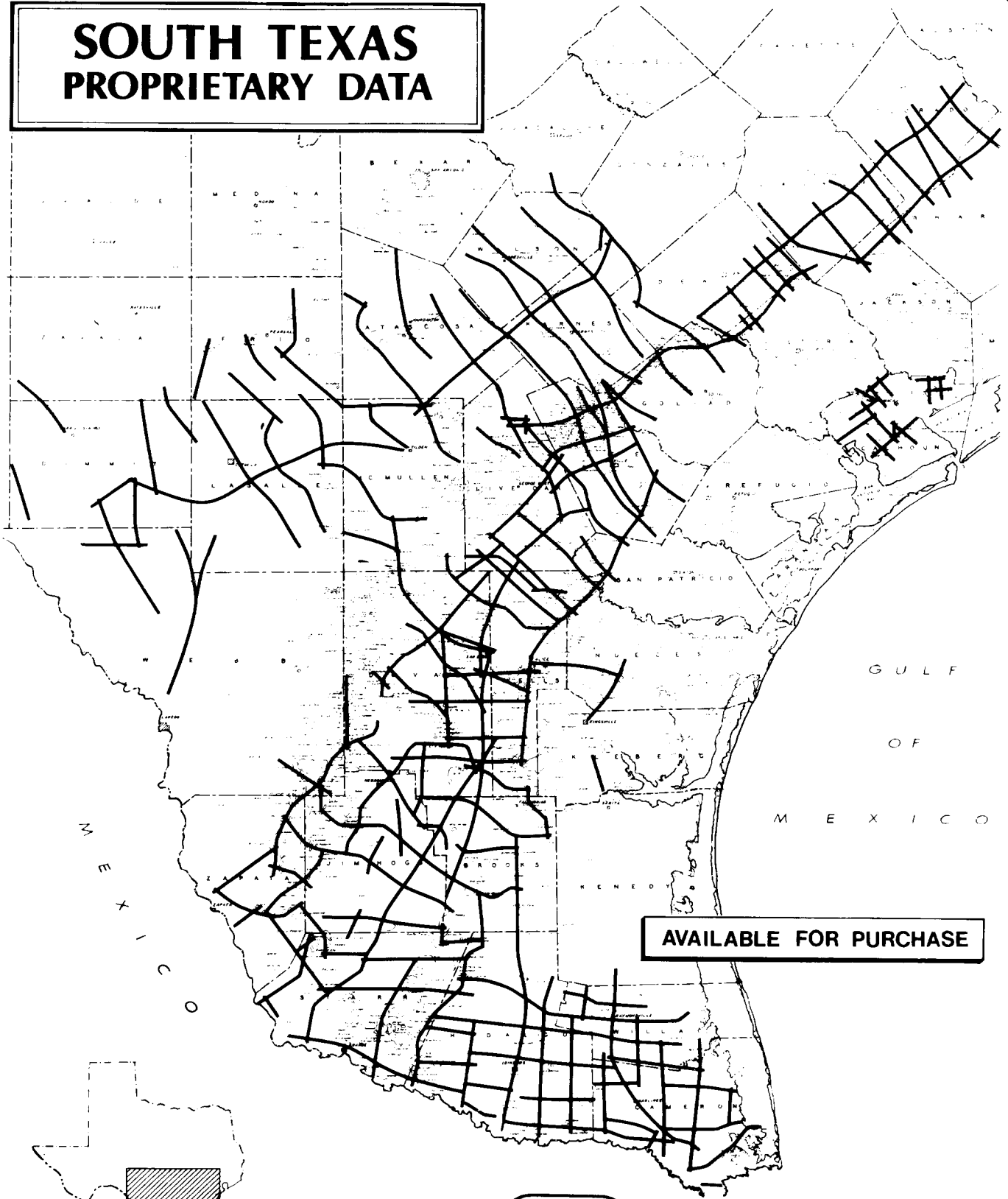
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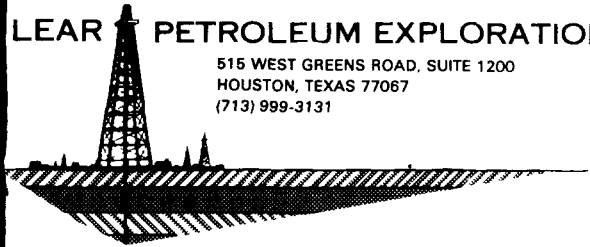

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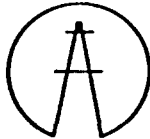
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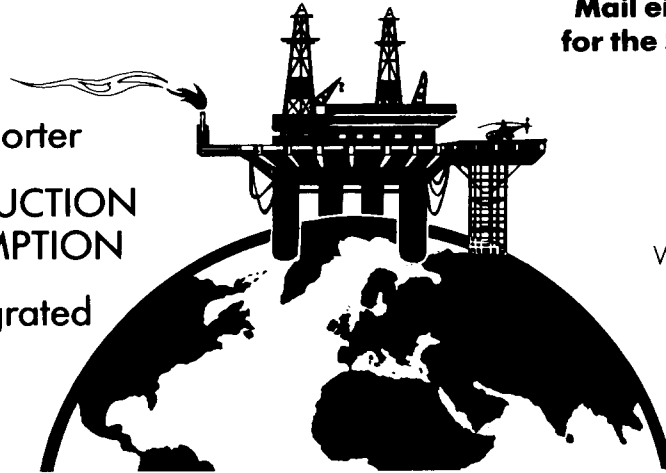
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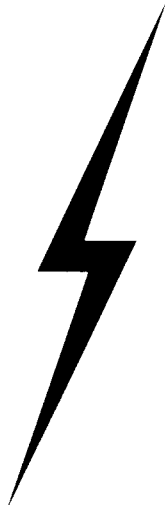


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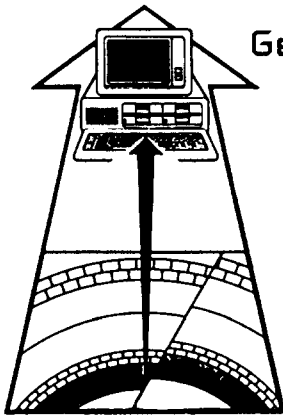
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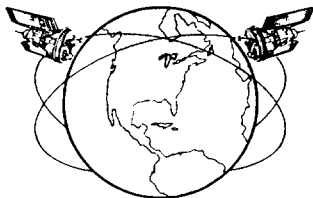
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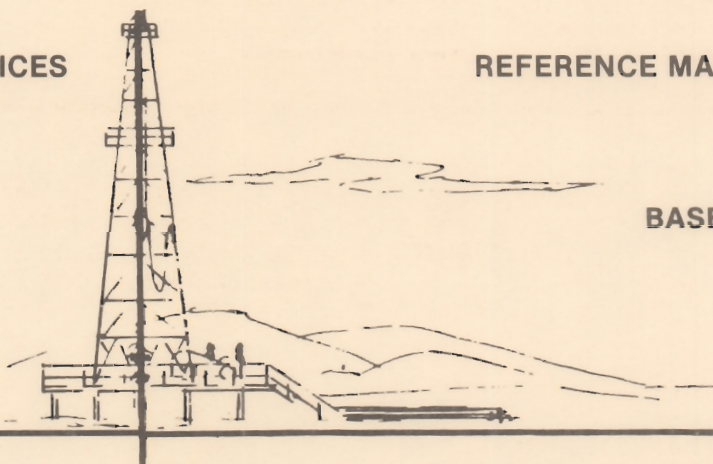
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