# BULLETIN



## HOUSTON GEOLOGICAL SOCIETY

Houston, Texas

# HOUSTON GEOLOGICAL SOCIETY

### 1968-1969 **OFFICERS**

President  1st Vice President  2nd Vice President  Secretary  Treasurer  EXECUTIV  George E. Carver, Jr.  Floyd B. Wilcox  Roby H. Clark  John L. Loftis, Jr.	Jim O. Lewis Fred M. Schall, Jr. Martin M. Cassidy Robert L. Musslewhite Robert R. Roady	CA 2-9481 CA 7-4371 CA 5-0881 CA 2-0376 CA 5-5511 CA 7-5261 CA 8-0541 CA 1-5459
	ITTEE CHAIRMEN	
Finance Distribution & Publication Awards & Loans Research & Study H.G.S. Membership Personnel Placement Remembrances Public Relations Entertainment A.A.P.G. Membership Ballot Advertising Exhibits—G.C.A.G.S. & A.A.P.G. Transportation Library Boy Scout Field Trip	James W. Roach	771-3861 JA 8-4141 NA 2-4222 JA 9-3443 CA 1-3312 CA 2-6285 771-3861 CA 4-9811 CA 5-0911 CA 4-5111 CA 5-6285 NA 3-3761 RI 8-2800 524-7471 CA 5-1511
Speci	al Committees	
Academic Liaison		CA 1 / G99
Oceanographic Liaison	Harold Geis	
Advisor to Museum of Natural Science	Edd R. Turner, Jr	CA 8-9361
Special Publications for Geology of Deltas	Martha Shirley Broussard	JA 8-4141
AAPG Continuing Education Co-ordinator	DeWitt C. Van Siclen	748-6600
REPR	ESENTATIVES	
G.C.A.G.S. Representative	Harold E. Voigt Kenneth R. Johnson	CA 4-5111 CA 7-7792
A.A.P.G. Group Insurance	John Bremsteller	
General Chairman of 1971 A.A.P.G. Convention	Edd R. Turner, Jr	CA 8-9361





# THE BULLETIN OF THE HOUSTON GEOLOGICAL SOCIETY Office—234 Esperson Bldg.—Houston, Texas 77002—CA 3-9309 Subscription Price \$3.00 per year

### THIS MONTH

Meeting Notice	Page	2
President's Page	Page	3
Honorary Member	Page	4
Treasurer's Report	Page	5
News of Members	Page	8
Committee Reports	Page	10
Geo Science Notes	Page	16
News of Other Societies	Page	20
Date Book	Page	23

### Editor McInnis S. Newby - CA 4-5251

### Associate Editors

In Memoriam Edward G. Lipp	CA 2-6285
News of Socities McInnis S. Newby, North Central	
Oil Corporation	CA 4-5251
Geo Science Notes Walter Sadlick, Dept. of Geology	
University of Houston	748-6600
Distaff Side Mrs. Marion (Dorothy) Roberts	622-7359

Published monthly, September to June by CARDINAL PRINTING AND LETTER SERVICE, INC.

Volume 11 Number 10

### **MEETING NOTICE**

The final meeting of the Houston Geological Society will be held at the Houston Club on Monday night, June 9th. This is ladies night, so all wives and girl friends are welcome.

Dinner will be \$5.00 per person and cocktails will be free, thanks to the courtesy of a number of service companies in the area.

DATE: Monday night, June 9th

PLACE: 10th Floor Houston Club

TIME: Cocktails 5:00 to 6:00 P. M.

Dinner 6:00 to 7:00 P. M.

SPEAKER: E. A. King, Jr.

SUBJECT: Lunar Geology and the Lunar

Receiving Laboratory

This should be a very interesting evening because of the speaker's subject and the recent flight of Apollo 10.

The Houston Geological Society extends its thanks and appreciation to the following service companies for their sponsorship of the cocktail hour at the June meeting.

Baroid Sidney Schaefer Geo Map Co. Schlumberger

Geological Consulting Services

Petty Geophysical, Inc.

and the second of the second of the second of

### THE PRESIDENT'S CORNER

The question arises more frequently, "What is the limit of authority of the "Geologist?" "What is the limit of authority of the Geophysicist?"

Today's "GEOLOGIST" is a specialist in many particular aspects of geology. Many of these, because of the nature of the geological problem, are studying the physical characteristics of the "ROCKS" of the earth.

A "GEOLOGIST" using an electric log, or suit of electric logs, is using information that is a result of measuring the physical properties of a formation through its response to electricity. A "GEOLOGIST" using a velocity log is studying the physical properties of a "rock" with respect to sound impulses. A "GEOLOGIST" using a core analysis is studying the physical properties of a core. A "GEOLOGIST" making a complete Mineralogic report is studying the physical properties of a particular mineral. This list could continue for many pages. The point to be made is that Geologists study physical properties of the Earth. Any of the above are certainly within the limit of authority of a GEOLOGIST.

In a recent article entitled "What's New in Geophysics", the following were listed among the inovations now used by the GEOPHYSICIST:

"Systems used at well site which give readings of effective porosity, quantitative lithology, permeability index, hydrocarbon identification, mineral-deposit location and evaluation, quantitative definition of oil and gas in place, and productivity of oil and gas." The "Bore-Hole Televiewer" is also listed as an inovation in geophysics to show bedding planes, cracks and fractures. Even "Photogeology" utilizing new photographic emulsions is now a new geophysical tool.

Has ''GEOLOGY'' become ''GEOPHYSICS'' or has ''GEOPHYSICS,'' discovered ''GEOLOGY?''

The publication of the American Geological Institute, "Geo Times," has many advertisements of instruments available for measuring the physical properties of rocks.

By definition "GEOLOGY" is the study of the earth. There are no limits as to the methods used to gather the information required for this study.

We have many societies that are recognized as being representative of a "Specialized Group of Geologists." These groups consider themselves geologists with a speciality.

Today's "GEOLOGIST" should realize that there are no limits imposed on the "authority of the Geologist in the study of the Earth." The only limits are those imposed by the "area of specialization of the individual geologist."

I am proud to bear the Professional Title of "GEOLOGIST." By necessity I have my specialization, but first, last, and always "I am a GEOLOGIST."

-- Jim O. Lewis

### J. BEN CARSEY TO BE HONORED

The Executive Committee has announced that they have elected J. Ben Carsey to Honorary Life Membership in the Houston Geological Society as a tribute to his many years of service to the society and to the advancement of geology. Mr. Carsey will be presented a plaque at the June 9 meeting. It is hoped that all of his many friends and admirers will be present at this meeting.

J. Ben Carsey received his early education in the Dallas public schools; later he received a degree in geology from The University of Texas. In June, 1925, he was employed by the Humble Oil & Refining Company, first serving in West Texas as a field geologist, then District Geologist, and subsequently, as Division Geologist. In 1941, he was transferred to Louisiana to organize the Division Exploration Department of the Humble Company where he served until 1946, then being transferred to Houston as Assistant Chief Geologist. In 1948, he spent six months in California assisting in the establishment of the Humble Oil & Refining Company on the West Coast. In November, 1948, Mr. Carsey became Chief Geologist for Humble, continuing in that capacity until 1955, when the position of Exploration Advisor was assumed. In 1950, Mr. Carsey was a participant in the Advanced Management Program of Harvard University.

Mr. Carsey has worked on many committees and offices in the Houston Geological Society including the Presidency. He has also served in many capacities within the American Association of Petroleum Geologists. In 1960, Mr. Carsey was a speaker on the Distinguished Lecture Tour of the A. A. P. G. He was vice-president of A. A. P. G. in 1961-62 and served as chairman of the Research Committee for two years. Mr. Carsey was chairman of the Committee on Statistics of Exploration Drilling in 1960, 1961, and 1962; chairman of the Matson Award Committee in 1962; and chairman of the Nominating Committee in 1963. He was awarded Honorary Membership in the Association in 1966 and elected to the Presidency in 1967.

Early retirement from the Humble Company was taken by Mr. Carsey in 1961 after 36 years of employment with this organization; he has been working as an independent geologist since that time. In 1925, Mr. Carsey married Dorothy Ogden, a graduate paleontologist. The Carseys have two children, one of whom, J. Ben Carsey, Jr., is also a a geologist.

# On The Distaff Side

Our President, Virginia Barber had her last board meeting on May 1. After the meeting adjourned all the ladies were invited to the patio for champagne and a delicious luncheon. Lovely corsages were presented by the hostess to all her Board Members.

The Flower Power Party and business meeting was held at the Briar Club. The new officers elected for the year of 1970 are as follows:

Mrs. R. J. (Grace) Chambers President: Mrs. Orville (Marion) Lundstrom President-Elect: First Vice-President: Mrs. John B. (Alene) Williams Second Vice-Pres: Mrs. Henry (Jo Ann) Campo Third Vice-Pres: Mrs. Harold (Virginia) Voigt Mrs. Curtis (Arlene) Bratt Secretary Treasurer Mrs. Davis (Gladys) Sheridan Historian Mrs. E. H. (Peggy) Rainwater Parliamentarian: Mrs. George (Mary Lou) Carver

### DIRECTORS

Mrs. J. T. (Betty) Goodwyn, Jr.

Mrs. W. E. (Jean) Greenman

Mrs. Adolphe G. (Josephine) Gueymard

Mrs. J. R. (Marion) Sanders

Mrs. Roland K. (Catherine) Thies

Mrs. John D. (Louise) Todd

### COMMITTEES

Mrs. Paul (June) Farren

Mrs. Thomas D. (Virginia) Barber

Mrs. James (Jerry) Wheeler

Mrs. Robert H. (Mary Ann) Mayse

Mrs. Wade W. (Beth) Turnbull

Betty Gahagan's mother, Mrs. E. W. Stewart of Durant, Oklahoma visited Betty and Don.

Mr. and Mrs. Thomas D. Rush are planning a six weeks vacation to Greece and Yugoslavia. They want to try and learn the Yugoslavian alphabet.

Tom Purcell has recently taken a course at Harvard University. Virginia went up May 10th to be with him for the activities.

Royce and Val Oualline with Bill and Robbie Payne spent a most enjoyable week end in Laredo.

The AAPG Convention in Dallas April 13-16 was well attended by Houston Members. All report a very successful convention.

John and Pauline Inkster, Harold and Virginia Voigt, John and Dot Cooke, Hillord and B. Hinson, Elliott and Alice Powers, A. L. and Gladys Selig, Jed and Trudie Maebius and Hilton and Nancy Rickard will be among the geologist and wives attending the joint AAPG-British Petroleum meeting to be held in Brighton, England. They will be leaving Friday, the 13th! Happy Landing!

This column will be taken over by Emma Fisk next year. Be sure and send her your news and data concerning the summer's activities.

-- Dorothy Roberts

### TREASURER'S REPORT

### TO THE MEMBERS OF THE H.G.S.

Two separate accounts are maintained for the H.G.S. (due in part to tax requirements). These accounts consist of an Academic and Operating fund with a checking account for each at the Bank of the Southwest. A savings account is maintained at Houston First Savings for the Academic fund and at Benjamin Franklin Savings for the Operating fund. The Academic fund is for professional activities such as Continuing Education programs, publications, awards, donations, student loans and other functions not of a social nature. The Operating fund is for general expenses and social activities of the Society such as bulletin and special printing expenses, secretarial expense, dinner meetings and speakers, dances, golf tournaments, etc.

A financial statement ending March 31, 1969 is shown with a comparison of the same period in 1968. Major income and expense items for the first nine months of this year's activities are shown separately. Major items not shown on the statement, but which will be paid from this year's funds, are:

- 1. Approximately \$2,000 bulletin expenses.
- Approximately \$2,600 publication expenses for the reprinting of the "Delta Volume" and \$4,200 for the printing of "Holocene Geology of the Galveston Bay Area."
- 3. Approximately \$900 for the last Continuing Education program.

Income for the remainder of the year is expected to be primarily from the sale of publications and loan repayments.

The H.G.S. is in a good financial position as a result of planning and hard work of members who have donated their time and efforts to produce fine publications and programs for the members. Study groups currently underway undoubtedly will have income generating publications for the future.

I wish to extend special thanks to my secretary for her able assistance in performing a major role in the details of the Treasurer's job.

-- Robert R. Roady Treasurer

# HOUSTON GEOLOGICAL SOCIETY STATEMENT OF INCOME AND EXPENSE

### For Nine Months Ended March 31, 1969

### ACADEMIC FUND

Income:	Sale of Publications Continuing Education Interest Income Field Trip	\$	2,265 3,080 849 595 \$ 6,789
Expense:	Publications (a)	\$	1,728
	Continuing Education (b)		1,622
	Donations		950
	Secretarial, Postage, Miscellaneous		<u> 126</u>
			\$ <u>4,426</u>
<u> Gain</u>			2,363
OPERATING F	UND		
Tm. c.	Marshanshin Duas	\$	7 500
Income:	Membership Dues Bulletin Advertising	Ф	7,599 1,480
	Interest Income		228
	interest income		\$ 9,307
			\$ <u>7,301</u>
Expense:	Bulletin Printing and Postage Printing, Secretarial, Miscellaneous	\$	6,502
	Postage		1,923
	Lectures		861
	Social Hour		620
	Dances		485
	Gifts and Awards		302
	Legal and Audit		300
	Telephone		167
	Miscellaneous		157
			\$ 11,317
Loss			(2,010)

- (a) Includes Field Trip Guidebook.
- (b) Does not include a charge of \$902.00 (which has since been paid) for the last continuing education program.

# HOUSTON GEOLOGICAL SOCIETY FINANCIAL STATEMENT

As of	$\mathbf{As}\ \mathbf{of}$		
3-31-69	<u>3-31-68</u>		

### ACADEMIC FUND

### Balance of Account:

Checking Savings	\$ 2,784.39 23,711.35*	
Total of Academic Account	\$ <u>26,495.74</u>	\$ 24,628.46

### OPERATING FUND

### Balance of Account:

Checking Savings	\$ 235.52 6,721.44	\$ 445.14 6,097.75
Total of Operating Account	\$ 6,956.96	

<sup>\*</sup> Includes \$22,000.00 Certificate of Deposit.

NEWS OF MEMBERS

Longtime HGS member, A. J. Stone passed away May 11, following surgery.

Bill Johnson, formerly with Humble, now has offices at 1313 C & I Building. His phone number is 224-8481.

Roger W. Bryan has moved his offices to 1022 San Jacinto Building, 77002, with phone number 223-9876.

Don Clutterbuck has joined International Nuclear Corporation as Operation Geologist. Don was formerly with Shell.

Bob Dollison, formerly with Pan American Petroleum Corporation and more recently with Horvitz Research Laboratories, has joined the ranks of Consulting Geologists. Bob may be reached at 7911 Hillcroft, phone 774-9157.

Walter D. Gardner has transferred from Bogota, Columbia, South America to Cities Service Oil Company, Box 300, Tulsa, Oklahoma, 74102.

Benjamin F. Prokop and Court Stineman announce their partnership with offices at Court Stineman Company, Suite 206, 4660 Beechnut Bldg., phone (713) 668-8782, Houston, Texas 77035. They will specialize in gravity & seismic brokering, interpretation and contract crews.

Martha Lou Broussard is no longer at Rice University. She plans to do freelance research and project background work from her home. Martha may be reached at MO 5-4428.

Richard L. Porter, formerly with Sinclair Oil Corporation, has joined Laird Oil & Gas, Inc. as Vice-President and Houston representative. Laird Oil is an affiliate of Laird, Inc., a Wall Street Investment Firm, 140 Broadway, New York, N.Y. (10005). The principal function of the Houston Laird Office at 466 Main Building, Houston, Texas 77002, Telephone: 227-6495 will be to examine and negotiate oil and investment possibilities and to participate in the supervision of operations (primarily in the southwest United States) in which Laird Oil is interested.

### THE SOCIETY WELCOMES THE FOLLOWING NEW MEMBERS

William M. Aber Eugene R. Andrews R. E. Bennett E. Fred Birdsall Floyd Cook Bryan A. Duby Wilmar Oil Co., Inc.
Apache Corporation
Cockrell Corporation
Continental Oil Company
Trans Ocean Oil, Inc.
Humble Oil & Refining Co.

Johnie M. Franz, Jr. Bradley R. Jones Andrew C. Jurasin Howard Karren Kent E. Laughery David E. Lewis James Edwin Lewis John D. Lomax Edgar Keith Martin B. E. Maxwell Eugene Nakayama Lee G. Nering Dudley L. Rainey Louis R. Rogers Z. W. Rogers, Jr. Thomas W. Rollins Wendell H. Russell Fairis Samuelson Dorman Shockley James M. Watson G. J. Wilson, Jr.

Texas Gulf Sulphur Standard Oil Co. of Texas Continental Oil Co. Monsanto Company Baroid Division, National Lead Co. P. R. Rutherford Amerada Petroleum Corp. Belco Petroleum Corp. Trans Ocean Oil Humble Oil & Refining Company Atlantic-Richfield Belco Petroleum Corp. Texas Gulf Sulphur Co. Humble Oil & Refining Company Texaco, Inc. Pennzoil International Baroid Div. National Lead Company Texas Gulf Sulphur Co. International Nuclear Corp. Humble Oil & Refining Company

Standard Co. of Texas

### COMMITTEE REPORTS

### THE BALLOT COMMITTEE:

The Ballot Committee of The Houston Geological Society has tabulated the voting for the various offices and positions for this year and is proud to announce the following:

> President: Vice-President:

FRED M. SCHALL, JR. ROBERT L. MUSSELWHITE

2nd Vice-President: Secretary Treasurer RUFUS J. LeBLANC McINNIS S. NEWBY STEWART H. FOLK

Executive Committeemen:

A. J. HINTZE

HAROLD E. VOIGT

The results of the Constitution and By-Laws amendments:

Constitution:

For - 893 Against - 61 For - 892 Against - 61

By-Laws:

--- B. J. Sorrell

Chairman

# # # #

### THE TRANSPORTATION COMMITTEE:

RE: G.C.A.G.S. Convention (Miami, October, 1969) H.G.S. Charter Flight

The Transportation Committee of the HGS would like to know how many members would be interested in a charter flight to the GCAGS Convention in Miami, October 29 to November 1, 1969.

Dependent on interest, one or two planes may be chartered at an estimated cost of between \$90 and \$120 per person.

As this is the last bulletin before the summer, please fill out the enclosed post card so that we may establish an idea of participation and be able to notify interested members throughout the summer about trip particulars.

JOSEPH L. ADLER Geologist & Geophysicist Tennessee Building CA 2-7925 Houston, Texas 77002	JOHN L. BIBLE BIBLE GEOPHYSICAL CO., INC. Gravity—Magnetic Surveys Interpretations 236 Esperson Bldg. CA 2-6266 Houston, Texas 77002
R. P. AKKERMAN Geologist EXPLORATION Engineer Review of Subsurface Data 3425 Bradford Place MO 8-4327 Houston, Texas 77025	LESLIE BOWLING Oil and Gas Consultant 316 California Bldg. JA 2-0432 New Orleans, Louisiana
ALLEN & GILKISON Oil and Gas Consultants Harris H. Allen and D. C. Gilkison 963 San Jacinto Bldg. CA 8-9329 Houston, Texas 77002	WAYNE F. BOWMAN Independent Geologist 1314 Niels Esperson Bldg. CA 2-0279 Houston, Texas 77002
JOY J. ANNELER Consulting Geophysicist and Geologist 715 Rusk — Room 200 222-0865 Houston, Texas 77002	ORVAL L. BRACE  Geologist  2206 South Coast Bldg. CA 8-5404  Houston, Texas 77002
A. I. BARTOW Geophysical Consultant 2315 Watts Road Phone: MO 8-3306	BREWER AND COMPANY  Consultants
BELL AND MURPHY Consulting Geophysicists  Houston Dallas CA 7-5716 RI 2-3196	EVARD P. ELLISON Geologist 1214 Americana Building CA 5-6285 Houston, Texas 77002

### PROFESSIONAL DIRECTORY

Space for Professional Cards of Members

CHARLES JACOBUS Drafting and Lettering Home, 622-2628 U of H, Ext 1568	MICHEL T. HALBOUTY  Consulting Geologist  Petroleum Engineer Independent Producer and Operator The Michel T. Halbouty Bldg.  5111 Westheimer NA 2-1130  Houston, Texas 77027
GEORGE H. CLARK Petroleum Geologist 404 First City National Bank CA 3-1187 Houston, Texas	THOMAS O. HALL Geophysical Consultant NA 2-8680 Office NA 1-1870 Residence
JACK COLLE & ASSOCIATES  Consulting Geologists and Paleontologists 817 C & I Building Houston, Texas 77002 CA 7-6266 SU 2-4555	HILLORD HINSON Consulting Geologist CA 8-9455 2138 Bank of the Southwest Bldg. Houston, Texas 77002
MORGAN J. DAVIS Petroleum Consultant  Suite 709 Capital National Bank Bldg. CA 7-7209 Houston, Texas 77002	KEPLINGER AND ASSOCIATES  Petroleum Engineers and Geologists 1436 Americana Bldg. Houston, Texas 77002 CA 7-3127 229 Kennedy Bldg. Tulsa, Oklahoma 74103 LU 7-5591
ERNEST A. ELWOOD, JR. Prudential Drilling Company 1418 Bank of the Southwest Bldg. CA 4-7741/Houston, Texas 77002	GENTRY KIDD and SHIRLEY L. MASON Geologists 813 Esperson Bldg. CA 7-8231
PAUL FARREN Geophysical Consultant Geodata Building MO 7-3317 5603 S. Rice Ave. (77036)	L. A. KIMES Exploration Consultant 9183 Katy Road Geology Geophysics

ORVILLE G. LUNDSTROM Nutter & Lundstrom Geologists 899 Houston Club Building Houston, Texas 77002/CA 7-6015	R. B. MITCHELL Geologist 2801 First City National Bank Bldg. Houston, Texas 77002
JOHN D. MARR  Petroleum Exploration Consultant Geophysics, Geology Seismic Data: Acquisition, Processing and Interpretation 739-B Tennessee Bldg. 225-4922	JOHN C. MYERS  Consultant in Oil, Gas and Sulphur 1207 Bank of the Southwest Bldg.  CA 5-4133 and CA 5-4559  Houston, Texas 77002
GEORGE N. MAY & ASSOCIATES  Consulting Geologists and Paleontologists  Building 36, Heymann Oil Center  P. O. Box 51858 Oil Center Station  Lafayette, Louisiana 70501  CE 4-3379	KENNETH DALE OWEN  Geologist  Esperson Building  Houston, Texas 77002
W. B. McCARTER C. E. McCARTER Independents 2522 Hazard JA 3-5733 JA 9-1881 Houston, Texas 77019	ROLAND B. PAXSON Consulting Geologist Oil and Sulphur 3524 Sunset Blvd. MO 8-9196 Houston, Texas 77005
GEORGE I. McFERRON  Consulting Geologist  Room 5, 1973 W. Gray JA 2-2627  Houston, Texas	WALLACE E. PRATT Geologist 2820 N. Torino Tucson, Arizona 85716
HENRY G. GUEST Consulting Geologist Review of Sub-Surface Data Gas-Oil-Ground Water 2214 Swift 77025 MO 5-5157	RAYMOND D. REYNOLDS Geologist 436 Bankers Mortgage Bldg. Houston, Texas 77001 CA 7-7633

A. L. SELIG Geologist 1907 Bank of the Southwest Bldg. CA 4-9774 Houston, Texas 77002	S. BROOKS STEWART Geophysical Consultant 320 Bankers Mortgage Bldg. CA 2-7718 Houston, Texas 77002
FRED L. SMITH, JR. Consulting Geologist Paleontologist 532 Main Bldg. Houston, Texas 77002 HO 8-7300 CA 5-5757	HAROLD VANCE Petroleum Investment Counselor Petroleum Evaluation Engineer CApitol 7-3949 1119 Bank of the Southwest Bldg Houston, Texas 77002
CARLETON D. SPEED, JR.	gene van dyke
Geologist – Oil Producer	Van Dyke Oil Company
711 Houston Club Bldg. CA 4-2523	Southwest Tower
Houston, Texas 77002	CA 8-8174
H. C. SPOOR, JR.	MERLIN J. VERRET
HARRY KILIAN Geologists	Geologist Route 2, Box 109
2130 Chamber of Commerce Bldg.	Lake Charles, Louisiana
Houston, Texas 77002 224-0588	Phone: 477-1477-8
D. C. STALLWORTH, INC. Engineering and Geological Drafting Surveying and Mapping Planimetering and Acreage Calculations 1210 Bank of the Southwest Bldg. Houston, Texas 77002 CA 3-7343	LAWRENCE J. VITTRUP Petroleum Geologist Representing Goodale, Bertman & Co., Inc. 1925 Bank of the Southwest Bldg CA 3-1191 Houston, Texas
cramon stanton	J. C. WALTER, JR.
Geologist	Geologist and Petroleum Engineer
2229 Chamber of Commerce Bldg.	3055 Humble Bldg. CA 7-1246
Houston, Texas 77002	Houston, Texas 77002
CA 4-2759	Home Phone: HO 5-9773

	,
JAMES A. WHEELER Geologist C.P.G. No. 109 926 Americana Bldg./CA 3-1618 Houston, Texas 77002	WOODHAM CONSULTING CO. Geological-Geophysical Consultants Bill Woodham — H. R. Warren 1200 C & I Building CA 7-4138
JAMES M. WILSON Geophysical Consultant 246 Main Bldg. CA 5-2145	ROLLA T. WADE Petroleum Engineer & Consulting Geologist 5202 Woodway Houston, Texas 77027 NA 2-8895
JOSEPH N. GRAGNON Consulting Geophysicist 438 Wycliffe Houston, Texas 77024 HO 8-4795	SAM E. DUNNAM Oil & Gas Consultant representing THE THORNWELL CORPORATION Exploration—Development—Acquisition Texas—Louisiana—Mississippi 2006 Bank of the Southwest Building Houston, Texas 77002 — 225-0593
NEIL E. HANSON Oil & Gas Exploration Americana Building 811 Dallas Avenue Houston, Texas 77002	



### GEOLOGY OF THE MOON AND METEORITES

By E. A. King, Jr.

### ABSTRACT

Our knowledge of the lunar surface has progressed greatly with the advent of high resolution photography from impacted, orbital and soft landed spacecraft. Conventional photo-geologic techniques have been used to construct "geological" maps of the lunar surface. Although much information has been obtained regarding the topography and surface features of the Moon, little is known regarding the bulk composition or composition of surface rocks. Some meteorites must originate from the lunar surface. The study of these objects is a logical preparation for analysis of lunar materials.

### Bibliography of the Speaker:

Elbert Aubrey King, Jr. Curator, Lunar Receiving Laboratory

- Education: University of Texas, Bachelor of Science degree in Geology, 1957; University of Texas, Masters degree in Geology, 1961; Harvard University, Ph. D. degree in Geology, 1964.
- Professional and Honory Societies: Member of Sigma Xi, Sigma Gamma Epsilon; Meteoritical Society; American Mineralogical Society, and The American Geophysical Union.
- Experience: Joined MSC in 1963, in the Space Environment Division, Geology and Geochemistry Section.

In 1964 he was assigned to Geology and Geochemistry Branch, and served as one of the instructors in the astronaut training course in geology both in the field and in the class room. Dr. King joined the Lunar Receiving Laboratory Program Office at the time of its formation in 1966.

Current Assignment: As Curator, Lunar Receiving Laboratory, he is responsible for the physical security and scientific integrity of the lunar samples, planning for the preliminary investigation of lunar samples in the LRL, prime contract for outside scientists concerned with lunar sample work, conducting program of geological, geochemical, and mineralogical research.

### **NEWS FROM TEXAS A&M:**

Texas A&M University in cooperation with The State Technical Services Institute and The Sea Grant Program presents a conference on THE ROLE OF MICROGRAPHICS IN MODERN INFORMATION SYSTEMS.

### Subjects covered:

Information Systems - A State of The Art Review
The Application of Microtechnology in Research Libraries
Microfilm in Specialized Information Centers
Legal Implications of Microfilm Utilization
Banquet - The Information Center Concept
The Computer - Micrographics Interface
Microfilm in Management and Marketing

### For Information contact:

Dr. Roger W. Elliott Department of Industrial Engineering Texas A&M University College Station, Texas 77843 Telephone 713-845-2911

### Texas A&M Lab Will Duplicate Major Areas of Texas Gulf Coast:

Texas A&M University will duplicate 80 percent of the Texas Gulf Coast in a coastal engineering laboratory at the institution's Research Annex, formerly Bryan Air Force Base.

The laboratory will include large models (ranging up to 300 feet) of Galveston, Corpus Christi, Matagorda, San Antonio, Aransas and Baffin Bays, Sabine Lake and Laguna Madre.

The project will cost approximately \$2 million. Texas A&M will seek financial assistance from the federal government, state and local authorities and private industry.

Dr. John B. Herbich, head of A&M's Coastal and Ocean Engineering Division, said the laboratory will be used to study a variety of coastal problems, including flooding due to hurricane surges, dispersion of waste discharged in bays and estuaries, erosion and improvement of designes of navigational channels and other inlets.

Herbich noted the Commission on Marine Science, Engineering and Resources has recommended establishment of coastal zone laboratories in cooperation with appropriate academic institutions. A&M officials hope their facility will be one of the designated laboratories.

In addition to the facilities at the Research Annex, the new lab will include a wave basin and a 150-foot three-dimensional wave channel on the main campus.

A larger wave basin (eight feet deep), along with the models will utilize a former aircraft hangar and several hundred feet of runway apron.

A&M officials hope to have the main facility and first model in opera-

### A&M Analyzing Sediment Samples For Scripps Deep Sea Drilling Project:

A&M's Activation Analysis Research Laboratory has initiated chemical analysis of sediment samples recovered during the first leg of the Deep Sea Drilling Project, which is being conducted by Scripps Institution of Oceanography of the University of California at San Diego.

The materials, some of which were recovered from water more than three miles deep by the drill ship Glomar Challenger, will be subjected to bombardment by nuclear particles. Their chemical composition will be determined on the basis of the resultant radiation produced.

Prime objective of DSDP is to gain insight concerning the history and origins of oceanic basins, and of the continents, and to gain new understanding of the processes that have led to their formation and modification, as well as to stimulate technology needed for eventual economic benefits.

The Atlantic Ocean phase of drilling and coring in the Atlantic include:

- 1) Sigsbee Knolls, under 12,000 feet of water in the Gulf of Mexico, were found to be salt domes.
- 2) Gas, oil and sulphur were discovered in the sediments and caprock above the Challenger Dome (a Sigsbee Knoll) in the deepest part of the Gulf of Mexico.
- 3) Oldest sedimentary rock yet found in the deep ocean, Upper Jurassic period (130-160 million years ago), was recovered east of the Bahama Islands.
- 4) Longest drill string ever suspended from a floating platform 19,075 feet with 2,738 feet penetration into the sediments.
- 5) Results strongly support hypotheses of continental drift and seafloor spreading; predicted age of seven magnetic anomalies confirmed.

### Texas A&M Vice President Heads Federal Off-Shore Oil Spillage Study Group:

Dr. John C. Calhoun, Jr., Texas A&M vice president for programs, has been appointed chairman of the Presidential panel to study the Santa Barbara off-shore oil spillage and recommend means to avoid such mishaps in the future.

The panel, which held its initial meeting in Santa Barbara, is a science and engineering group, which Dr. Calhoun emphasized is completely separate from the one Secretary of Interior Walter J. Hickel formed to review regulations governing off-shore drilling.

Calhoun's group is concerning itself with four basic areas outlined by Dr. Lee A. DuBridge, President Nixon's science advisor:

"How the federal government can best and most rapidly assist in restoring the beaches and waters around Santa Barbara; how best to prevent this kind of sudden and massive oil pollution; how the methods of existing technology can be developed to control and remove oil pollution, and what avenues of research can be identified where resources will be most profitably committed in solving this problem."

Dr. Calhoun, an Interior Department science advisor and special assistant from 1963 to 1965, has served on several federal study groups. Among his many responsibilities at A&M, he heads the institution's

National Science Foundation Sea Grant Program.

NEWS	 	 	 	 	 OF OTHER	SOCIETIES

### AAPG NEWS:

During the past year the Houston District Representatives to AAPG have processed and recommended for approval forty eight applications for membership in AAPG. There have also been five applications for certification processed by the local group.

A new constitution for AAPG, which I think will be better than the one under which we now operate, is in the making. It appears that at long last AAPG is operating on a good fiscal basis; and due to very generous contributions to AAPG from Humble Oil & Refining Company and the Claude Worthington Benedum Foundation during the past year, several worthwhile projects which may have been dropped have been continued.

I wish to thank all of the District Representatives and other AAPG members who were called on for all the work they did during the year.

Serving as chairman of the District Representatives allowed me an opportunity to see AAPG as an organization which offers a great service to its members, and I heartily recommend the job to every AAPG member.

-- Ronald B. Thompson, Chairman Houston District Representatives A. A. P. G

### GENERAL INFORMATION ITEMS:

The AAPG filed a brief with the House Ways and Means Committee in connection with the hearings reviewing certain IRS regulations dealing with the taxation of advertising in scientific journals. The IRS alleges that such income is unrelated to the purpose of the organization. The President of the AGI made a brief appearance before the Committee, representing its sixteen member societies. The Association's brief was compiled with the cooperation of the following selected affiliated societies and sections:

Corpus Christi Geological Society
Houston Geological Society
New Orleans Geological Society
Oklahoma City Geological Society
South Texas Geological Society
Tulsa Geological Society
West Texas Geological Society
Gulf Coast Association of Geological Societies
Pacific Section
Rocky Mountain Association of Geologists

It was possible to demonstrate that the income from advertising is a comparatively small amount compared to the cost of publication, but that

the small advertising income was critical to successful funding. A memorandum summarizing requirements that the tax-exempt societies will have to meet under the new IRS regulations concerning advertising is being prepared at Headquarters and will be distributed to AGI member societies at an early date.

### AAPG COMMITTEE WORK

President-Elect Crandall is already busy making preliminary arrangements for committee assignments to become effective with the inception of his administration on July 1. Presidents have many requests from members who wish to be assigned to committee work, and this is a good thing.

Another effective way of getting involved in committee work is to contact the Chairman of the Committee in which you are most interested; let him know of your willingness to work and of any particular interest or contact which would benefit his Committee program. Ask him for a temporary assignment, if one is available, and request him to include your name when his recommendations for filling vacancies go to the next president-elect. Your initiative and candor will be greatly appreciated --every committee chairman is delighted with a new and ready helper. I urge all of you to join me in continuing enthusiastic and faithful service to our Association.

### REPORT OF THE AAPG BUSINESS COMMITTEE MEETING

The early Sunday morning (April 13, 1969) meeting of the Business Committee convened at 9:00 a.m., with 147 in attendance, consisting of 89 District Representatives, 44 alternates, 3 Members-at-large, 2 SEPM representatives, 7 members of the incoming and outgoing Executive Committees, and your Chairman and Vice-Chairman, James Shouldice.

The principal item of business, as announced fully a year ago, was the consideration of the proposed Constitution and Bylaws, which had been published in the January 1969 BULLETIN, with some modifications in the March 1969 BULLETIN. The report of the Constitutional Revision Committee, recommending the adoption of the proposed Constitution and Bylaws, was discussed thoroughly pro and con. It appeared that most of the objections which were offered from the floor had already been taken care of by the modifications cited above. It was also apparent that the good and free discussion satisfied most of those attending, for when the final vote was taken, it showed 139 for and 7 against.

### PROFESSIONAL DIVISION MEETING

A meeting of about fifty Certified Petroleum Geologists was billed as the "first annual meeting of AAPG's Professional Division." Division President George Gibson (in whose absence, Division Vice President John Rouse presided) had called the meeting for the purpose of getting an expression of opinion from interested members of the Division regarding the suggestions for modifying the Division's Bylaws, which had come from the 1968 Business Committee Meeting in Oklahoma City and which had been referred to the Division by the AAPG Executive Committee. These suggestions had to do with (1) change of title, (2) mail ballot for biennial election of officers, (3) the modification of the government of the Division for the handling of the business to be shared by the Advisory Council and an Annual Meeting of the members of the Division, and (4) a revision of the amendments procedure to provide for a variety of ways for amendment proposals to be made.

A record of the recommendations from the meeting was made, and these will be considered by the officers of the Division in recommending amendments to the membership of the Division, currently totaling 1,117.

### ANNUAL BUSINESS MEETING

The Annual Business Meeting was convened on Wednesday afternoon, April 16, 1969, at 3:30 p.m., in the Theatre at the Memorial Auditorium.

The petitions of the Austin Geological Society and the Nebraska Geological Society for affiliation with the Association were approved.

The proposed Constitution and Bylaws which had been referred by the Business Committee were presented for approval. The proposed documents were described briefly, and after an equally brief discussion from the floor, they were unanimously approved for referral to the membership by mail ballot.

### DATE BOOK

June 5 & 6, 1969, Texas A&M University Short Course, "The Role of Micrographics in Modern Information Systems," Texas A&M University, College Station, Texas.

June 9, 1969, Houston Geological Society Monthly Meeting, "Ladies Night," 5:00 p.m., Houston Club, 10th Floor, Subject: "Lunar Geology", Speaker, Dr. Elbert King.

June 13, 1969, Departure of Houston Geological Society sponsored Charter Flight for Amsterdam-London for the joint meeting in Brighton, England, 7:00 p.m. -- <u>JETERO</u> Airport.

October 29 - Nov. 1, 1969, Gulf Coast Association of Geological Societies Annual Meeting, Miami Beach Florida, Carillon and Deauville Hotels.

November 10, 11, 12, 1969. The Geological Society of America Meeting, Atlantic City, New Jersey.

### **GEOPHYSICAL SERVICES**

APACHE EXPLORATION CO., INC.

Geophysical Consultants
Houston, Texas 77002
C & I Life Bldg.

A. L. Ladner

222-9649

### TELEDYNE EXPLORATION

A Teledyne Company

5825 Chimney Rock Road P. O. Box 36269

Houston, Texas 77036

713 666-2561

### SIDNEY SCHAFER AND COMPANY

2200 Welch Avenue Houston, Texas 77019

Sidney Schafer Jack C. Weyand JA 9-8789

### Seismograph Service Corporation

A SUBSIDIARY OF RAYTHEON COMPANY

Robert B. Baum

CA 2-9071

### ELECTRIC AND WELL LOGGING

BAROID DIVISION, NATIONAL LEAD COMPANY
Well Logging and Mud Company

P. O. Box 1675

JA 4-6381

### DRESSER ATLAS

Division of Dresser Industries, Inc. 1045 The Main Building Houston, Texas 77002

J. L. P. Campbell

W. D. Bishop

W. L. Young

R. M. "Dusty" Rhodes
Ross B. Smith

CA 4-8961

### SCHLUMBERGER WELL SERVICES 1512 Bank of the Southwest Houston, Texas 77002

H. Duane Babcock

C. E. Tedrow E. H. Heider Kenneth S. Howell J. B. Blazek

CA 5-1607

### CORE ANALYSIS

CORE LABORATORIES, INC.

3615 Gulf Freeway

Core Analysis and Mud Logging

John E. Furen

CA 3-4193

### **GEOPHYSICAL INSTRUMENTS**

DRESSER SIE

10201 Westheimer Road

P. O. Box 2928, Houston, Texas 77001

F. A. Pratt

Vice President, Marketing

SU 2-2000

### OIL PRODUCERS

GEORGE MITCHELL & ASSOCIATES, INC.

12th Floor, Houston Club Bldg. Houston, Texas 77002

George Mitchell

CA 5-0161

### SOUTHERN NATURAL GAS COMPANY

Richmond Tower Bldg. P. O. Box 1513

Houston, Texas 77001

J. K. Larsen

NA 2-7270

### OIL FINANCING

BANK OF THE SOUTHWEST, N.A.

P 0 Box 2629 Houston, Texas 77001

Frank McGonagill, Vice President

CA 5-1551

Manager, Oil and Gas Department

Ext. 481

### DRILLING COMPANIES

BAY CITY DRILLING COMPANY

Box 1389

Bay City, Texas

R. O. McSwane

CI 5-8389

BIG "6" DRILLING COMPANY

1228 Bank of the Southwest Houston, Texas 77002

W. H. Smith, President

CA 5-6576

OTIS RUSSELL DRILLING COMPANY

2916 7th Street Bay City, Texas

Otis Russell

CA 8-7919

### TRITON DRILLING COMPANY

P. O. Box 22166 Houston 77027 SU 2-2250

Robert Briggs

Roland Nelson

### LOG LIBRARIES

### SFISMOGRAM LIBRARY CORPORATION

**Gulf Coast Division** 

Texas — Louisiana — Mississippi

3815 Richmond Ave.

Houston, Texas 77027

T. Pope

MO 7-0916

### REPRODUCTION COMPANIES

CARDINAL PRINTING & LETTER SERVICE, INC.

234 Esperson Bldg. Houston, Texas 77002

Mrs. Pollyann Howe

Mrs. Chic Adams

CA 3-9309

HOUSTON BLUE PRINT & STATIONERY CO.

700 Walker

CA 3-4358

1324 Travis

CA 4-6036

3301 Richmond Ave.

IA 9-4141

Houston, Texas

### PETROLEUM INFORMATION

### PETROLEUM INFORMATION CORP

SOUTH COAST BLDG, HOUSTON CA 8-9041 1640 GRANT, DENVER 825-2181 AND OFFICES ACROSS THE U.S.

COVERING THE NATION'S OIL AND GAS ACTIVITY REPORTING SERVICES. COMPLETION CARDS, COMPUTER PROGRAMS

(PRODUCTION DATA ON TEXAS AND LOUISIANA)

# Houston Geological Society 234 ESPERSON BUILDING HOUSTON, TEXAS 77002

J. D. DARTELL CONCULTANT
FAG BACKNOWN BLDG.
HOLLTON 2, TANKS

77002

BULK RATE

PAID
Houston, Texas
Permit No. 5872