

GEORGE N. MAY

ROCKHOUNDS
of
HOUSTON

An Informal History of the Houston Geological Society

By

ALVA C. ELLISOR

ROCKHOUNDS OF HOUSTON

*An Informal History of the
Houston Geological Society*

By

ALVA C. ELLISOR

Copyright, 1947

Houston Geological Society

Printed in U. S. A.

ROCKHOUNDS of HOUSTON

An Informal History of the Houston Geological Society

CONTENTS

	Page
Acknowledgments	1
Prologue	3
Looking Backward.....	5
Those Who Paved the Way for the Houston Geological Society.....	8
Organization of the Houston Geological Society.....	14
Our First Convention.....	17
Our First Two Officers.....	20
Our Honorary Life Members.....	22
Our Two New Englanders.....	28
A New Technique—Geophysics.....	31
Our First Ten Years.....	34
Our Second Convention.....	39
Our Projects—.....	41
Library Fund.....	41
Field Trips.....	43
Study Groups.....	45
Stag Parties.....	47
Student Awards.....	48
Review Conference	49
Our Third Convention.....	50
Place and Date of Our Luncheon Meetings.....	53
Members of the Society Who Have Served the Association.....	54
Members Who Served the Society.....	58
Veterans of World War II.....	60
Members Serving the Government as Civilians During the War.....	61
Our Membership—.....	62
The Past Members.....	63
The Active Members.....	67
Programs of the Society.....	71
References	98

ACKNOWLEDGMENTS

This history was written at the request of Col. Olin G. Bell, president (1945-46) of the Houston Geological Society. The sources of information were many. In addition to the records of the Society, I used freely the Bulletins of the American Association of Petroleum Geologists; articles published in *The Lamp*, in *Humble Company Bulletins*, in *The Houston Chronicle*; and the Proceedings of the Geological Society of America. A bibliography is included in the appendix.

I am deeply grateful to many individuals for help of one sort or another. David Donoghue, Alexander Deussen, Wayne F. Bowman, Paul Weaver, L. T. Barrow, John M. Vetter, and Phillip F. Martyn generously contributed much information. Others who helped are Dave P. Carlton, Donald M. Davis, Carl B. Richardson, Esther Applin, Alan Bruyere, J. Elmer Thomas, Lois Johnson, John F. Weinzierl, Merle C. Israelsky, L. W. McNaughton, George S. Buchanan, Wallace C. Thompson, John C. Miller, R. C. Bowles, D'Arcy M. Cashin, Sidney A. Judson, F. Julius Fohs, J. Brian Eby, Frank W. DeWolf, Shapleigh G. Gray, Raymond H. Goodrich, F. M. Hutchinson, and R. R. Hobson. I am indebted to Daphne Sellards McGowan for the story of her father, Dr. E. H. Sellards; to M. M. Sheets and Harry Kilian for preparing the two lists of members; to L. T. Barrow, Olin G. Bell, Alexander Deussen, Marcus A. Hanna, Paul Weaver, Robert B. Campbell, Raymond D. Woods and Ann Lou Bright for reading and criticizing the manuscript, and finally to Helen Lee Davis and Alma Jean Smith for the laborious task of typing.

The following members of the Society have generously sponsored the publication of this manuscript: Wayne F. Bowman, Olin G. Bell, George S. Buchanan, Alexander Deussen, Dr. J. Brian Eby, Phil F. Martyn, Wallace C. Thompson and John M. Vetter.

ALVA C. ELLISOR.

September, 1946.

ROCKHOUNDS OF HOUSTON

PROLOGUE

The history of the Houston geologists is "alive with action and aglow with color." These Houston rockhounds have participated in the most colorful era of the petroleum industry; they have seen the industry's progress almost from its infancy and have contributed in a large way to that progress. From time to time it became necessary for the geologist to develop new techniques for oil-prospecting in this unique salt-dome country. Certainly his geologic problems have been most challenging. Some of the most famous men in the petroleum industry and geologic profession have been or are members of the Houston Society. Its past members are scattered all over the United States and various parts of the world.

A history of the Houston Geological Society is now timely. Through its pages we see a small group of men and women advance geologic thought and, through their application of new ideas and new theories, make geology more and more a practical science. Along with the growth of the industry, the Houston organization has grown and is now the largest of local geological societies. Since 1932 it has been affiliated with the American Association of Petroleum Geologists. The charter members of the Society played an important part in the early history of the Association and ten of its presidents—one-third of the total—have been members of the Houston Society.

LOOKING BACKWARD

Petroleum, one of the oldest known of the natural resources, was first discovered in Asia several thousand years before the Christian Era. Zoroaster, who captured Babylon about 2458 B.C., founded the early Persian religion of fire worship. These ancient Persians probably used the oil springs of Baku in their religious ceremonial fires. As late as the fifteenth century oil was known as "Babylonian pitch." The word petroleum is derived from Latin "petra," rock, and "oleum," oil, and in the seventeenth century it was called "rock oil." Until the eighteenth century "rock oil" was valued only for medicinal purposes and was highly recommended for such ailments as gout, rheumatism, indigestion, kidney trouble, palsy, consumption, and even ringworm.

Long before the white man came to Texas, the Indians there had found oil seeping out of the ground and had used it for medicine, for tanning hides, for waterproofing fabrics, for caulking their boats, and as binder for war paints. However, the first recorded use of petroleum by the white man in America occurs in the log of the DeSoto expedition dated July 25, 1543. The tiny, rudely constructed boats used in this expedition were sailing along the Texas coast to Mexico when a storm hit them. Alvaro Fernandez, who referred to himself as the Gentleman of Elvas (Portugal), wrote an account of the expedition which was published in 1557 in Evora, Portugal. He wrote: "The vessels came together in a creek where lay the two brigantines that preceded them. Finding a scum the sea cast up, called copee, which is like pitch and used instead on shipping where that is not to be had, they payed the bottoms of their vessels with it." According to nautical experts, the spot mentioned was about three and five-tenths miles west of Sabine Pass, Jefferson County, Texas.

Three hundred years later, 1857, Frederick Law Olmstead, in "A Journey Through Texas," vividly described the sulphur springs and deposits of asphalt at Sour Lake where rude bathing houses were built over the soggy ground and summer visitors were guaranteed a cure for any and all diseases. Early drilling by spring pole produced a few gallons of heavy oil used for medicinal purposes. Although petroleum was used principally for medicinal purposes before the Civil War, Dr. B. F. Shumard, State Geologist of Texas, in 1858 reported that at Sour Lake "the earth for some distance was so highly charged with bitumen as to be employed for purposes of illumination and to some extent as fuel."

The year 1859 marks the beginning of a new era in petroleum history—"the lamp and lubricating period." On August 27 the famous Drake well—called Drake's Folly by the skeptical—was brought in near Titusville, Pennsylvania. A well only 69 feet deep and pumping 20 barrels of oil a day changed the course of our civilization. A new industry was born.

But Texas, too, has a claim to being the birthplace of the oil industry. Early in 1859, Jack Graham dug a pit near a tar spring in Angelina County, and an abundant supply of oil came to the surface. Also in 1859, Lynis T. Barrett and his associates leased land and laid plans to drill near Nacogdoches, Texas. However, the Civil War interrupted his plans until 1866 when he drilled his first well, No. 1 Isaac C. Skillern, near Oil Spring, Nacogdoches County. When the auger reached 106 feet, oil, water and gas "gushed" to the top of the well. This well is believed to be the first "gusher" of not only Texas, but of the United States. And Lynis T. Barrett may well be considered the original pioneer of the oil industry in Texas since his efforts brought in the first field. The Nacogdoches

ROCKHOUNDS OF HOUSTON

field has the distinction of being the oldest field in Texas and in 1941 had a production of eight barrels a day from forty wells.

Nevertheless, Corsicana is generally conceded to be the birthplace of the Texas oil industry, for there the Magnolia Petroleum Company opened the first important oil field in Texas, October 15, 1895, with the first test at 1050 feet producing two and one-half barrels of oil per day. In 1896 five wells were already completed with a total yearly production of 1450 barrels of oil. Previously, here on the Gulf Coast, Savage Brothers drilled some shallow wells at Sour Lake in 1893 and in 1895 produced some heavy lubricating oil. In 1898 the first refinery on the Gulf Coast was opened at Sour Lake for the manufacture of lubricating oil with a daily capacity of 100 barrels.

Back in 1890 when a few shallow wells at Nacogdoches produced in one year only 54 barrels of oil valued at \$227, Patillo Higgins of Beaumont, Texas, had an unshaken belief that oil could be found three miles south of Beaumont at Spindletop, a mound rising about fifteen feet above the surrounding area. The origin of the name Spindletop is to be found in the field notes of Surveyor David Brown in January 1835. His record says: "The common corner of the James W. Bullock and the John A. Veatch surveys is situated on the banks of the marsh on the western bank of the River Neches. At the commencement set post and mound at the end of the marsh at the lower edge of the place known as Spindle Tops." This common corner is on the eastern side of Spindletop. Someone with imagination fancied the stumps of dead trees rising from the marsh resembled a spindle. The salt dome was first called Spindle Top.

Higgins, a keen field observer, had studied United States Geological Survey reports and other books on geology. He was convinced that the presence of gas seeps, mineralized waters, and mound-like elevations were of significance as indications of an oil field. So, in 1892 he "convinced George W. Carroll of the soundness of his reasoning," and on August 24 the Gladys City Oil, Gas and Manufacturing Company was organized. This was said to be the "first attempt in Texas to utilize geology in an effort to secure oil production." The first well was drilled in 1893 to 300 feet by W. B. Sharp, a water well contractor of Dallas, who later became organizer and president of the Producers Oil Company. Though showings of gas were encountered, the hole was abandoned. Because of these showings, several citizens of Beaumont became interested in the enterprise; however, the state geologist examined the area and decided there were no oil possibilities. Still Patillo Higgins's faith was unshakable.

Late in the 1890's Captain Anthony F. Lucas, a mining engineer and geologist, came to Beaumont from Louisiana in search of sulphur and was persuaded by Higgins to drill for oil at Spindletop. Lucas drilled 600 feet and uncovered a quantity of oil, but quicksand in the hole ended his efforts and his cash account. He then sought financial aid in the East. Guffey and Galey of Pittsburgh decided to risk some money in Captain Lucas' second venture. In this second well "on January 10, 1901, the bit reached a depth of 1,100 feet. Without warning, the ground began to tremble. With a terrific roar some 300 feet of pipe weighing many tons hurtled from the hole and over the top of the derrick, to be followed by a column of black gold that geysered 100 feet into the air. Higgins's dreams, held so firmly for ten long years, had come true."

In his biographical sketch of Anthony F. Lucas in 1921, Alexander Deussen wrote: "This discovery by Lucas gave an enormous impetus to the oil industry and it marked the beginning of its expansion to the present gigantic proportions. It is safe to conclude that the Lucas discovery was second only in importance to

ROCKHOUNDS OF HOUSTON

the discovery by Drake in Pennsylvania in 1859, and when the history of oil is finally written the name of Lucas will occupy a most important place in this history."

The Texas oil boom was now started in earnest. Houston was one of the three cities to benefit through the discovery of Spindletop. And the stage was set for the rockhounds of Houston.

THOSE WHO PAVED THE WAY FOR THE HOUSTON GEOLOGICAL SOCIETY

Wallace E. Pratt once said—"The enterprise of winning oil from the earth is essentially a geological venture." The Southern Pacific was the first company in Texas to see the need of geology in the development of its oil properties. When the Dumble State Geological Survey of Texas ceased to exist, Dr. Edwin T. Dumble, its former director, convinced the president of the Southern Pacific that the Company needed a geologist. So in 1897, Edwin T. Dumble became consulting geologist and general manager of the Southern Pacific oil properties and in the same year founded in Houston the first commercial geologic department in the United States devoted to "the winning of oil from the earth." The Southern Pacific, and later its subsidiary—the Rio Bravo Oil Company—maintained its geologic department until the late 'thirties.

Dumble, the great pioneer geologist, was an old Houstonian. His family had moved here from Indiana shortly after his birth in 1852. He became interested in geology and other sciences early in life and founded the Houston Academy of Sciences. His first geological paper—"The Nacogdoches Oil Field"—was published in the small journal of this society.

When the third Texas Geological Survey was organized in 1888, Dumble was appointed state geologist and served in that capacity until 1896 when the appropriations were discontinued by the State Legislature and the work of the Survey came to an end. It is said that a member of the Texas Legislature, "a horny handed son of toil," claimed to have surprised a member of the field parties fishing and, on searching the auditor's books, found on file an item of twenty-five cents spent for fish hooks. Hence, the downfall of the Dumble Survey.

Dumble, in 1903, organized the Rio Bravo Oil Company to develop the Southern Pacific's oil lands in Texas and remained as vice-president and manager until his retirement in 1925. He died in Nice, France, on January 25, 1927. As dean of petroleum geologists, Dumble inspired many young geologists who are now outstanding in the petroleum industry.

Associated with Dumble on the State Survey were William Kennedy and W. F. Cummins. Kennedy served on the Survey from 1890 until it ceased to exist in 1896. He came with Dumble to the Southern Pacific in Houston and later was on the geological staff of the Rio Bravo from 1902 to 1915 when he resigned to go into business as a consulting geologist and engineer with offices in Houston. In 1917 he became chief geologist for the Lone Star Gas Company in Fort Worth where he lived until his death on February 23, 1926. Kennedy's prime as a geologist was during the days of Spindletop. He was called by many the "Daddy of the Salt Dome Country" and at that time was the most widely known "oil geologist" in the southwest. He not only engaged in geologic work in East Texas, as well as in the Gulf Coastal area, but also engaged in drilling and other phases of the "oil game." While he published a number of papers, possibly his best contribution was the joint paper with C. W. Hayes of the United States Geological Survey—"Oil Fields of the Texas-Louisiana Gulf Coastal Plains"—published in 1903. Although Hayes was the senior author of this report, Kennedy did the geologic work.

W. F. Cummins, who lived to be ninety years old, worked in and out of Houston from 1902 to 1925. His death occurred in El Paso on January 8, 1931.

ROCKHOUNDS OF HOUSTON

Coming with Dumble from the State Survey, he was first with the Southern Pacific doing general geology, then, as chief geologist, was transferred to the East Coast Oil Company, a subsidiary of the Southern Pacific operating in Mexico, and later came back to Houston with the Rio Bravo. Professor Cummins, as he was affectionately called by his associates, was the first to work the geology of northern Mexico. He was considered the "Father of the Tampico, Mexico, Oil Field," for to him goes the credit of having discovered that oil field. His earlier work on the Permian of West Texas was his outstanding scientific contribution while on the staff of the State Survey. Both Dumble and Cummins were charter members of the Houston Geological Society.

There were other outstanding pioneer geologists who were associated with Dumble and who also became charter members of the Society. One of these was Lee Hager, who, shortly after Spindletop came in, was employed by the Guffey Petroleum Company—now the Gulf Oil Corporation—in Beaumont. In 1903 he became associated with Dumble as geologist for the Rio Bravo Oil Company but left in 1907 to become associated with E. F. Simms, an independent operator. Later he operated on his own, and in 1916 he organized the Tidewater Oil Company which he sold to L. P. Garrett in 1923. He then organized the Federal Royalty Company. He became one of the pioneer members of the American Association of Petroleum Geologists in 1918.

Associated with Lee Hager in the early days was W. C. Moore. Hager depended to a great extent on paraffine dirt as an indication of salt domes. He published under Moore's name a paper entitled—"Indications of Oil in the Gulf Coast Country." This paper caused many people to look for deposits of paraffine dirt and report their findings to him. In 1918 Alexander Deussen, when discussing paraffine dirt, said, "I suppose that one of the keenest persons working in the Coast country is Lee Hager. I think he has discovered more domes than almost any other person there, and he depends almost entirely upon these showings." This statement was made at the A.A.P.G. convention when Deussen reported on the "Developments in the Gulf Coast Country in 1917."

Lovic P. Garrett became associated with Dumble after completing his studies at the University of Texas in 1902 and stayed until 1908 when he left to head the land and lease department of the Guffey Petroleum Company in Beaumont. By 1912 he became advisor to the executive department of the Gulf Production Company, successor to Guffey, and later its vice-president. His fellow geologists recognized his position in the field of economic geology when they elected him president of the A.A.P.G. in 1931. As a charter member of our Society, he retained his membership up to his death, December 13, 1943.

Dumble was known not only as a geologist but also as the "Father of Petroleum Engineers," because he inspired many young men to become petroleum engineers. One we well know because of his national reputation and because of the part he played in the history of the Houston Geological Society is John R. Suman. Mr. Suman started with the Rio Bravo in 1912 and worked in close association with William Kennedy in the field. Others associated with Suman in those days were Charles Lawrence Baker, J. Wallace Bostick and Ward W. Kelley. These men, in 1918, did the field work for the University of Texas Bulletin, "Geology of East Texas." In 1920 Wayne F. Bowman and in 1921 Paul L. Applin and Lyman C. Reed joined the staff of the Rio Bravo.

After the discovery of Spindletop, three oil companies came into existence, which later were to play an important part in the growth of Houston and in the lives and fortunes of hundreds of geologists in and around Houston. They were:

ROCKHOUNDS OF HOUSTON

the Houston Oil Company; J. M. Guffey Petroleum Company, later to become Gulf Production Company and then the Gulf Oil Corporation; the Texas Fuel Company—organized by J. S. Cullinan and Walter B. Sharp—the forerunner of The Texas Company.

In that early day W. S. Farish, W. W. Fondren, R. L. Blaffer, and H. C. Wiess, who helped organize the Humble Oil & Refining Company in 1917, were independent operators at Spindletop.

Shortly after the Spindletop discovery, William B. Phillips, Director of the University of Texas Mineral Survey, published a paper on the Beaumont Oil Field. Also R. T. Hill, at that time connected with the United States Geological Survey, began to devote his attention to the salt dome country. In 1901 Hill made a report on Spindletop for Patrick Calhoun who, according to David Donoghue, might be said to have been the "promoter of the Houston Oil Company." In 1902 Hill was with the Guffey Company for a brief period, and in 1903 he published a paper—"The Beaumont Oil Field, with notes on other oil fields of the Texas Region."

Another geologist who made a very early report on Spindletop and other domes was H. B. Goodrich, an independent geologist from New York.

Gilbert D. Harris, geologist in charge of the Louisiana Geological Survey from 1899 to 1908, likewise made a study of the Texas salt domes. On March 27, 1901, he published a statement in the New Orleans Picayune concerning Spindletop: "The scanty evidence at hand would therefore indicate that the gusher is situated on top of a Cretaceous anticline or fold, and that the pressure is from gas so commonly encountered in structures of this type. That the supply of oil is considerable, cannot well be doubted, but that it will continue to 'gush' long is very doubtful." In June 1902, Harris credited R. T. Hill with the remark, "Without doubt, Spindletop is an upheaval." When reporting on Sour Lake and the general stratigraphy of southeast Texas, Harris said that all the information at hand made "The geologist skeptical of finding oil in large quantities over any great extent of country." He also stated "the problem of how to find oil in this portion of the country is indeed a difficult one, for . . . the true structure of the Tertiary and Cretaceous formations is masked by almost level and even bedded Pleistocene deposits." In another instance Harris wrote: "January 10, 1901, may well be considered the date of the commencement of our education regarding a new type of geological phenomena—We refer to the origin and method of development of local dome structure."

Even earlier, back in 1892, Harris had made the first paleontological report on fossils from the subsurface of the Texas Gulf Coast. J. A. Singley of the Texas Geological Survey took samples from the Galveston deep well (3,070 feet), kept a careful well record and described the lithology of the samples. He sent the fossils to Harris, who, then with the U.S.G.S., made a preliminary report and later in 1895 described and published descriptions of the new fauna from this well.

Harris continued to study the Gulf Coast salt domes and from 1907 to 1913 published several papers in which he elaborated on his theory of the origin of salt domes—the idea of the salt core being pushed upward by the force of growing salt crystals.

Arthur C. Veatch did his first oil geology at Beaumont while with the Houston Oil Company from December 1901 to April 1902. He also did some work on Damon Mound salt dome and, in 1902, as assistant geologist under Gilbert D. Harris, published the "Geography and Geology of the Sabine River." According to Paul Weaver, Veatch did the first plane table work on the Gulf

ROCKHOUNDS OF HOUSTON

Coast. The several topographic maps of salt domes published in the U.S.G.S. Bulletin No. 212 by Hayes and Kennedy were made by Veatch on contract with Hayes for fifty dollars each. Veatch was not a member of the Survey.

In 1901, George Irving Adams, a geologist on the U.S.G.S., described the stratigraphy of the Texas oil fields in his report titled "Oil and Gas Fields of the Western Interior and Northern Texas Coal Measures, and the Upper Cretaceous and Tertiary of the Western Gulf Coast." This report included his studies on the Gulf Coast salt domes. N. F. Fenneman, also of the U.S.G.S., in 1906 published his "Oil Fields of the Texas-Louisiana Gulf Coastal Plain." In the summers of 1907 and 1908 Alexander Deussen, working for the U.S.G.S. under the direction of T. Wayland Vaughan, gathered information and data for his report on the "Geology and Underground Waters of the Southeastern Part of the Texas Coastal Plain."

In 1908 W. E. Wrather became associated with the Guffey Company in Beaumont when L. P. Garrett organized the land and lease department. He came to Houston with Garrett in June 1916 and left later in the year to go into consulting work in Dallas. In 1915 Alexander Deussen came to Houston in the employ of the Gulf Production Company to study the Humble salt dome, but he resigned in 1916 to go into business for himself. David Donoghue was also with the Guffey in Beaumont from January 1914 to June 1916 and moved to Houston along with the staff of the Gulf Production Company. Another member of the Land and Lease department under L. P. Garrett was H. E. Minor, who was transferred from the field in North Texas—where he had been since 1913—to the geologic department in Beaumont March 1916. He later came to Houston when the Gulf offices were moved there. At this time, Waldemar F. Henniger, who had been working with the Gulf two previous summers, came from the University of Texas. Paul B. Leavenworth joined the geological staff July 1916. John D. Anderson, Jr., after a few months of roughnecking with The Texas Company in 1919, went with the Gulf in June, but he left in October 1920 to go with the Houston Oil Company. Ben C. Belt came from Mexico in 1920. In 1921, Dilworth Hager, R. H. McIver, Glen Clark, and Andrew L. Ballard became members of the Gulf Geological force.

Another geologist among the pioneers, a charter member of the Society who maintained his membership until recently, is F. M. Hutchinson, who came to Houston in 1912 as chief geologist for the Houston Oil Company. In 1913 he left the Houston Oil to become president of Higgins Oil and Fuel Company. From 1925 to the present, he has been an independent operator.

The Texas Company moved its headquarters from Beaumont to Houston about 1905. A geologic department was established sometime in 1914 with E. G. Woodruff as chief geologist. In 1918 Charles R. Eckes succeeded him. L. A. Scholl, Jr., followed as chief geologist from 1920 to 1923. Raymond F. Baker became division geologist in 1918 and chief geologist in 1923. He lives in New York, still holding that position.

Alan Bruyere, one of the Society's past members, began his career in 1915 with The Texas Company in Oklahoma. He moved to Houston in 1917, left for Mexico in 1919, and returned to Houston in 1936 where he has been ever since. There are a number of other outstanding geologists who started their careers under E. G. Woodruff here in Houston, although their assignments took them to various parts of the state, to Oklahoma and even to Cuba. Mr. Bruyere recalls the names of H. H. Adams, Lewis S. Coryell, Joseph E. Kent, Roy Reynolds, William J.

ROCKHOUNDS OF HOUSTON

Millard, R. C. Hay, Max A. Pishel, L. J. Youngs, Walter Small, L. Murray Neuman, Wallace E. Pratt, and E. W. Gardner.

In 1921 The Texas Company added Fred C. Sealey, Reese Rogers, Elmer H. Finch, and T. M. Prettyman to their Houston geologic force and in 1922 Lloyd North and Charles Renaud.

Fred B. Plummer arrived on the Gulf Coast in 1915 along with Clarence E. Hyde and a few others as geologists for the Roxana company. Later Mr. Plummer went to Holland for the Royal Dutch Shell, returned to Houston in 1922, and changed to Rycade Oil Corporation in 1923.

Henry L. Hamilton and R. A. Pomeroy opened an office in Houston in 1916 as consulting geologists and engineers. Associated with them was A. W. Ambrose. In 1917 Mr. Hamilton joined the staff of Oil Issues. In 1919 he and W. L. Walker became independent operators, and on their geologic staff were Arthur S. Henley, Walter W. Scott, J. H. Lowe, and George R. Stevens. Also among these early geologists were F. C. Grebin, who came to Houston in 1918 as an independent geologist, and Edwin B. Hopkins, who was a consulting geologist in Houston in 1919 but left before 1920.

The Humble dates its origin back to the days when W. S. Farish, a young lawyer in Mississippi, came to Beaumont during the Spindletop boom and became interested in drilling wells; when W. W. Fondren drifted to Beaumont from Corsicana with his drilling rigs; when R. L. Blaffer left his father's coal business in New Orleans and came to Beaumont during the boom days and became interested in the oil business; when Harry C. Wiess of Beaumont, home from college, took over the management of his father's large oil holdings in Spindletop. These men later pooled their equipment and properties with the Sterlings who had organized the Humble Oil Company in 1911. On March 1, 1917, the holdings of all these men were incorporated into the Humble Oil & Refining Company.

The Humble started its geologic department on March 1, 1918, when Wallace E. Pratt was employed as chief geologist with offices in Fort Worth. Shortly before Christmas 1919, D'Arcy M. Cashin and J. E. LaRue drove to Houston from the North Texas district to work under the direction of R. D. Farish, one of the company directors. Hiram J. McLellan, who came to the Humble in Houston as an engineer early in February 1919, was transferred to the geologic department when Cashin and LaRue arrived. McLellan vividly remembers the time because D'Arcy Cashin sent him out to the field on Christmas Day. In the early spring of 1920, Mr. Pratt moved his office to Houston. About the same time S. G. Garrett and George Elledge were transferred from Cisco. Lewis C. Chapman was with the Humble a short time during this period, likewise A. L. Selig for the summer months of 1920. Robert B. Campbell started roughnecking for the Humble on the Gulf Coast in September 1919, and in the spring of 1920 Mr. Pratt added him to the geologic staff in Houston but sent him to West Texas by early summer. W. D. Blackburn was transferred from the engineering department to the geologic department in 1921. In February 1922, Dave P. Carlton moved to Houston from Cisco where he had been with the Humble since 1919. His job was to handle tax problems connected with discoveries. In July 1924, he became head of the geophysics department.

Donald C. Barton came to Houston in 1919 as field geologist for the Amerada. In 1921 he became a member of the geologic department of the Rycade and in 1923 chief geologist. R. H. Goodrich became associated with Dr. Barton in September 1922.

ROCKHOUNDS OF HOUSTON

About 1919 John L. Henning came to Houston as geologist for the Union Sulphur Company.

In 1920 a few more geologists arrived in Houston—John K. Knox with the Roxana, Edgar Kraus, Alfred Gray and George M. Bevier with the Atlantic, John M. Nisbet with the Empire Fuel and Gas Company, and Sheridan A. Thompson with the Vacuum. Also among these early Houston geologists were R. L. Heaton and Earl Dissinger.

In 1921 Jephtha C. Stone was in charge of the geologic work of the Pierce Oil Company. About the same time, John B. Overstreet and Ray Holloman were with the Houston Oil. George Sawtelle started to work in Houston in 1921 with the Kirby Petroleum Company. W. Armstrong Price came to Houston in the summer of 1922 as consultant with Dr. Charles Dabney but left in about a year to go to West Virginia. He returned to Houston in May 1924 as consultant, remaining until 1930.

In 1920 micropaleontological work was launched in Houston. On Labor Day of that year Esther Richards, a graduate of the University of California, started to work for Dr. E. T. Dumble, and on the last day of November Alva C. Ellisor of the University of Texas joined the Humble geologic department. In 1921 The Texas Company employed Hedwig T. Kniker, also from the University of Texas, as micropaleontologist. Laura Lee Lane was associated with Esther Richards of the Rio Bravo during the summer of 1922, and after graduating from the University of Texas in June 1923, she became paleontologist for Alexander Deussen. Grace Newman of California became Esther Richard's assistant in the fall of 1922, and Emma Jane Coffman of Oklahoma University, now Mrs. John Miller, joined the paleontological laboratory of the Humble in June 1923. One more in this group at this time was Elisabeth Stiles, also from the University of Texas. She started with the Gulf company as geologist and later was one of the pioneers of the geophysical work of that company. With the exception of Emma Jane Coffman, all of this group shared an apartment and, believe it or not, lived peaceably together and did not divulge company secrets.

In a sketchy fashion I have recorded as complete a list as possible of those men and women who may be termed pioneer Gulf Coast geologists. Many of them became the charter members of the Houston Geological Society.

ORGANIZATION OF THE HOUSTON GEOLOGICAL SOCIETY

The geologists in Houston, a gregarious lot, sought out those who spoke their language. The old Bender Hotel, now the San Jacinto Hotel, was the meeting place of many of the rockhounds for lunch. According to D'Arcy Cashin one day early in January 1920, someone suggested they organize into a social group. They did and elected him president. A few months later when Mr. Pratt moved to Houston, he was extended an invitation to meet with this group. In jest, he said he would—provided he was not made president. According to Mr. Cashin, that is exactly what happened—Mr. Pratt was elected president. Cashin also remembers that, as many of the geologists were bachelors, they dined at Mrs. Allen's Cafeteria on Fannin Street.

Evidently this organization which Cashin remembers was short lived. Early in the summer of 1923 at the invitation of Donald C. Barton of the Rycade Oil Corporation, geologists began meeting for luncheon on the first Friday of each month at the University Club, then located over the present Liggett's drug store on Main and Rusk. About this time Alexander Deussen and Wallace E. Pratt, two past presidents of the American Association of Petroleum Geologists, thought that the time had come to extend an invitation to the Association to hold its Ninth Annual Convention in Houston. They discussed the idea with Donald Barton, John Suman and others. At the monthly meeting on August 8 at the University Club, this matter was brought up, and it was unanimously decided to extend the invitation.

As an organization was necessary to prepare for this meeting, the Houston Geological Society was formally chartered on August 8, 1923, with John R. Suman as president and David Donoghue as secretary-treasurer. At this time there were about 73 geologists in and out of Houston, all of whom were elected charter members of the society. From the secretarial report of David Donoghue we have the original list of members. Several are now deceased. The list is as follows:

Esther Richards Applin (Tallahassee)	Harold S. Cave (Denver)
Paul L. Applin (Tallahassee)	Emma Jane Coffman (Houston)
A. C. Bace (Tulsa)	W. F. Cummins, deceased
Raymond F. Baker (New York)	M. A. Davey, Jr. (Palestine, Tex.)
Thomas C. Banks (San Antonio)	E. DeGolyer (Dallas)
Donald C. Barton, deceased	Alexander Deussen (Houston)
George M. Bevier (Pasadena, Calif.)	E. J. Dewees, deceased
W. D. Blackburn (Houston)	David Donoghue (Fort Worth)
Wayne F. Bowman (Houston)	E. T. Dumble, deceased
E. W. Brucks (San Antonio)	O. H. Eichelberger (Dickinson, Tex.)
J. O. Bryant—unknown	Alva C. Ellisor (Houston)
Dave P. Carlton (Houston)	L. H. Freedman (Fort Worth)
D'Arcy M. Cashin (Houston)	L. P. Garrett, deceased

ROCKHOUNDS OF HOUSTON

R. H. Goodrich (Houston)	Lloyd North (Edinburg, Texas)
James N. Gould (unknown)	R. W. Pack (Beaumont)
J. N. Gregory (San Angelo)	R. B. Paxson (Houston)
Dilworth S. Hager (Dallas)	Dabney E. Petty (San Antonio)
Lee Hager, deceased	Fred B. Plummer (deceased)
W. R. Hamilton, deceased	Helen Plummer (Austin)
A. S. Henley, deceased	Sydney Powers, deceased
W. F. Henniger (Houston)	W. E. Pratt (Frijole, Texas)
F. M. Hutchinson (Houston)	T. M. Prettyman, deceased
Charles G. Jaqua (Houston)	H. S. Rade (unknown)
P. S. Justice (Beaumont)	Lyman C. Reed (New York)
Ward W. Kelley (San Antonio)	Warren B. Reed, deceased
G. Mose Knebel (New York)	George Sawtelle (Houston)
Hedwig T. Kniker (Chile)	Aubrey Schofield (London)
John K. Knox (Seattle)	Fred C. Sealey (New York)
Edgar Kraus (Dallas)	Erwin W. Smith (Houston)
Laura Lee Lane, deceased	Elisabeth Stiles (Hamilton, Texas)
Paul Leavenworth (Houston)	John R. Suman (New York)
Victor Lieb (Houston)	Ray Thompson (Laramie, Wyoming)
Rebecca B. Masterson (San Antonio)	S. A. Thompson (Dallas)
H. E. Minor (Houston)	F. E. Vaughan (Pasadena, Calif.)
John Moir (unknown)	W. A. Williams (Capitola, Calif.)
Grace Newman (San Francisco)	Charles W. Wohlford, deceased
	C. E. Yager (Fort Worth)

The letter, by John R. Suman, president of the Society, notifying each geologist of his election to a charter membership, is reproduced on the next page:

ROCKHOUNDS OF HOUSTON

JOHN R. SUMAN, PRESIDENT
316 SOUTHERN PACIFIC BLDG.,
HOUSTON, TEXAS

DAVID DONOGHUE, SEC'Y & TREAS.
WEST BLDG.,
HOUSTON, TEXAS

HOUSTON GEOLOGICAL SOCIETY

Houston, Texas,
August 27, 1923.

Mr. David Donoghue,
Houston, Texas.

Dear Friend:

It is my privilege to notify you that you have been elected to a charter membership in the Houston Geological Society. The objects of this society are the stimulation of interest in geology in this territory and the promotion of social and professional intercourse among local geologists.



We intend to hold called meetings from time to time at which papers on various geological and scientific subjects will be presented. While a majority of the membership is engaged in economic work and Petroleum Geology in particular, we do not intend to confine our papers to purely economic matters. Prominent geologists and scientific men visiting in this vicinity will be entertained by the Society at special dinners at which they will be accorded the opportunity to lecture on pertinent topics.

The Houston Geological Society will hold a luncheon on the first Friday of each month in Houston. ^{These luncheons will be strictly informal} and purely social; no papers will be allowed. Bring your visiting friends to these luncheons so that all of us may meet them. Your attention is directed particularly to the luncheon on Friday, September 7th. You should make it a point to be present at this luncheon to get the latest news of the California meeting of the American Association of Petroleum Geologists which will be held in Los Angeles, September 20th to 22nd.

There are no initiation fees or dues for charter members in the Houston Geological Society. It may be necessary to levy assessments against the membership from time to time, however, to meet minor current expenses. These expenses will not be excessive. Special expense will be incurred only with full knowledge and consent of the Society and will also be made by assessment.

No reply is necessary to this notification if you accept membership. If you do not care to belong to the Society, please drop us a line to that effect.

Very truly yours,

OUR FIRST CONVENTION

The Executive Committee of the American Association of Petroleum Geologists accepted the invitation to hold the Ninth Annual Meeting in Houston, March 27, 28 and 29, 1924. Work was immediately started to make this meeting the best ever held. Alexander Deussen was appointed general chairman. To finance the Convention the membership was assessed about \$1,000 and an additional \$4,000 was raised from various oil companies and individuals. Unique red, green and yellow cards were mailed to the members of the Association advertising the meeting and urging them to attend. Numerous invitations were sent to outstanding geologists. Every member in the society was put to work. The committees were as follows:

LOCAL COMMITTEES IN CHARGE OF THE MEETING

General Chairman, Alexander Deussen

Program—Wallace E. Pratt, chairman; R. F. Baker, D. C. Barton, G. M. Bevier, E. T. Dumble, Dilworth Hager, H. E. Minor, R. W. Pack, F. B. Plummer.

Arrangements—D. C. Barton, chairman; F. B. Plummer, G. M. Bevier, E. W. Brucks, Charles Jaqua, Lyman Reed.

Hotels—David Donoghue, chairman; W. D. Blackburn, W. F. Bowman, Edgar Kraus.

Reception—Dilworth Hager, chairman; Mrs. Paul Applin, Miss Alva Ellisor, Miss Hedwig Kniker, Miss Laura Lee Lane, Miss Reba Masterson, Mrs. F. B. Plummer, Miss Elizabeth Stiles, Paul Applin, O. H. Eickelberger, Fred C. Sealy, D. M. Cashin, W. F. Bowman, V. C. Perini, Grady Kirby, F. E. Vaughan, George Sawtelle, L. B. Benton, T. M. Prettyman, E. G. Thompson, J. B. Blanchard.

Banquet—D. M. Cashin, chairman; A. S. Henley, Paul Leavenworth, Lloyd North, S. A. Thompson, Miss Grace Newman, Mrs. F. B. Plummer.

Field Trips—W. F. Henniger, chairman; R. F. Baker, D. P. Carlton, H. E. Minor, F. B. Plummer, Fred C. Sealy, D. C. Barton.

Ladies—S. A. Thompson, chairman.

Finance—L. P. Garrett, chairman; F. M. Hutchinson, H. E. Minor, D. M. Cashin.

Automobiles—D. C. Carlton, chairman; T. R. Banks.

Publicity—D. C. Barton, chairman; B. M. Bevier, R. L. Dudley.

Entertainment—J. Elmer Thomas, chairman; George Sawtelle, R. L. Dudley, R. B. Whitehead, Luther White, Bed Stroud, J. Earle Brown.

Committee for Ladies' Entertainment—*At Large*: Mrs. L. P. Garrett, Mrs. Wallace E. Pratt, Mrs. John R. Suman. *Registration*: Mrs. Dave Carlton, Miss Elizabeth Stiles, Miss Emma Jane Coffman. *Bridge Tea*: Mrs. D. C. Barton, Mrs. David Donoghue, Mrs. J. O. Bryant, Mrs. A. S. Henley, Mrs. R. H. Goodrich, Mrs. H. E. Minor, Mrs. W. D. Blackburn. *Luncheon San Jacinto Inn*: Mrs. W. F. Henniger, Mrs. F. O. Sealy, Mrs. John Knox, Mrs. R. F. Baker, Mrs. F. E. Vaughan, Mrs. George Sawtelle. *Reception at Hotels*: Mrs. G. M. Bevier, Mrs. Dave Carlton, Mrs. R. L. Dudley, Mrs. R. P. Paxson, Mrs. W. F. Bowman, Miss Elizabeth Stiles, Miss Emma Jane Coffman.

ROCKHOUNDS OF HOUSTON

David Donoghue reported that a "program of technical papers and entertainment was prepared, the likes of which the A.A.P.G. has never known before or since." To this day many geologists consider this convention the best ever held, especially the lavish entertainment. At this meeting there were 310 members and 200 guests registered.

The technical part of the program listed 91 papers which were almost entirely on salt domes. Printed on a red card advertising the meeting were these words:

F R E E ! ! !

Five Million Dollars

Worth of

Salt Dome Dope

All of this "free dope" has been preserved in the Salt Dome volume published by the A.A.P.G. in 1926. Therefore we will record only the non-technical part of the program.

Lavish entertainment was provided for the wives who came with their "geologist husbands." On Thursday afternoon, a bridge tea was given at the Houston Country Club—indeed, a very beautiful tea. Saturday the visiting ladies were complimented with a trip on the boat "Nicholas" down Buffalo Bayou to the San Jacinto Battlegrounds where an elaborate luncheon was served at San Jacinto Inn. These delightful affairs were talked about for years.

For the geologists, on Friday afternoon, March 28, there was a field trip to Barbers Hill and Goose Creek. The citizens of Barbers Hill and vicinity were hosts for a big barbecue. An "after-barbecue" speech was made by John Henry Kirby, after which the geologists continued on their way for an inspection of the Goose Creek oil field.

The entertainment committee hurried the geologists back to Houston for the best and most unforgettable feature of the Convention—the banquet and dance—held in the Ball Room of the Rice Hotel. The banquet, very elaborate with many favors, was served while music was being played by the Humble Oil & Refining Company Band. The menu programs were unique, covered with geologists' "doodlings." J. Elmer Thomas was toastmaster, and speakers on the program were W. S. Farish, Carroll H. Wegemann and Mrs. D. C. Barton. Following the after-dinner speeches, there was presented "An Allegorical Fantasy, Rock Hounds Rampant, by rank amateurs." This was a scream, if slang be permitted. R. B. Whitehead, as Zeke, became famous with his song hit, "When They Strike Oil on My Daddy's Farm." A vaudeville show by Mr. Gallagher (J. Earle Brown) and Mr. Shean (J. Elmer Thomas) went over big, especially their theme song—"Mr. Gallagher and Mr. Shean." David Donoghue, as Mose, gave a stereopticon lecture—"Famous Men of Science." There were many other performers. A very handsome souvenir of the banquet was "Tommy's Libretto," which included all the songs, the program and the cast of characters with their pictures. Following this grand entertainment, there was dancing until "three o'clock in the morning" with L. C. Findley's orchestra playing dreamy waltzes.

After the Convention, several very interesting field trips were held. Sunday, March 30, a special train took a group of geologists to Texas Gulf Company's sulphur mine, Gulf, Matagorda County, Texas. After a tour of the plant and instruction on the process of mining sulphur, the geologists were guests of the

ROCKHOUNDS OF HOUSTON

Texas Gulf Sulphur Company for lunch at Gulf. On Monday, March 31, there was a delightful field trip to Avery Salt Mine where every one descended into the interior of a salt dome plug to see the salt mines. Later, the geologists returned to New Iberia by way of Jefferson Island and the former home of Joseph Jefferson. From New Iberia, trips were made to the salt domes and oil fields. Wednesday, April 2, a trip under the direction of Sidney Powers was made to Palestine and Keechi salt domes and to Palestine Salt Works. The visiting geologists were entertained for lunch at the Palestine Country Club as guests of the Rotary and Lions Clubs. Additional trips were arranged for those who wanted to visit other salt dome oil fields close to Houston.

OUR FIRST TWO OFFICERS

The Convention was soon history, but the Houston geologists continued their meetings on the first Friday of the month. Our first two officers were John R. Suman and David Donoghue. In October 1924, John Suman was re-elected president and David Donoghue re-elected secretary-treasurer; Alva C. Ellisor was elected vice-president. These two men, Suman and Donoghue, worked very hard for the success of the Convention. Both were among our pioneer geologists here in the Gulf Coast, and both contributed much to the two organizations. Mr. Suman was regional director of the American Association of Petroleum Geologists from 1922 to May 1924. Mr. Donoghue succeeded him and served until 1927.

John Suman, on graduating as a mining engineer from the University of California, came to Houston as a geologist for the Southern Pacific. His career as petroleum engineer developed with the Rio Bravo. His book, "Petroleum Production Methods," has been a handbook in the industry since its publication and has run through many editions.

Mr. Suman and Mr. Pratt were neighbors and very close friends. One day when Mr. Pratt suggested that he join the Humble family, Mr. Suman said he was satisfied where he was for he had time to play golf. Undaunted—and used to getting what he wanted—Mr. Pratt talked to Mrs. Suman and told her that "husband John" was getting into a rut and losing his ambition. So, in 1927 "husband John" became part of the Humble family as a director. In 1933 he was elected vice-president in charge of production. He is credited with an important part in the development that has made Humble the leading oil producer of the United States. He is universally recognized as one of the ablest executives in the industry. On February 1, 1945, he resigned from the Humble to become vice-president and director of the Standard Oil of New Jersey.

Because of his ability to tell a good story, John Suman is always in demand as speaker at banquets and stag parties. There is, however, one that Harry C. Wiess told on him at the time he left Humble to go to Standard:

"The first time I ever saw John Suman he displayed the lovable qualities that have endeared him to so many.

"It was in the Saratoga, Texas, field. I was drilling on a small lot. I didn't have room for the derrick and boiler, too.

"Part of the boiler was on property leased by Suman's company. Suman was a big operator; he had all of 20 acres.

"Some of Suman's hired hands objected to the boiler and referred me to Mr. Suman.

"I appealed to John, who answered: 'Forget about the boiler, and let it stay there. *I'm always glad to help a little fellow.*'"

Mr. Suman's unflinching interest and enthusiasm started the Houston Geological Society upon its career as one of the largest in existence. He, along with Pratt, Deussen, Barton, Vetter, and a few others, nursed the Society through its infancy and saw it grow into a healthy organization that has survived several sick spells. He attended meetings regularly until other interests crowded in. His civic interests were many. A list of them shows that in 1940 he headed Houston's big Community Chest Drive. In 1945, he was director and secretary of the Houston Chamber of Commerce and for a number of years was a director of the Family Service Bureau. He was the first president of the Oil World Exposition and held

ROCKHOUNDS OF HOUSTON

that office for a number of years. He is vice-president of the National Association of Manufacturers. He is an ardent sportsman and, when regional head of "Ducks Unlimited," made a real contribution to wild life conservation. Mr. Suman is a director of the American Institute of Mining and Metallurgical Engineers and, in 1941, was elected its president. In 1943 he received from this Society their award—the Anthony F. Lucas medal—"for distinguished achievement in improving the technique and practice of producing petroleum."

As secretary, David Donoghue's vivid recollection of the Convention was "work, work, work, going home tired, going through three days of the meeting worn out and then sitting around for a week or two after it was over, regretting that there was nothing to do."

David Donoghue, after graduating from the University of Texas in 1912, became assistant to Alexander Deussen, who was then on the staff of the United States Geological Survey and was mapping the geology of Southwest Texas Coastal Plain. From 1914 to 1918 Donoghue was scout, lease man and then geologist for J. M. Guffey Company, later the Gulf Production Company. Donoghue moved to Houston with the Gulf in June 1916. Five years later, he resigned to become a consulting geologist in Houston. From 1924 to 1925, he was again assistant to Alexander Deussen, who was then vice-president of the Marland Oil Company. Dave was very active in the Society the short time he was here. Along with Deussen and Pratt, he devoted much of his time and energy in putting over so successfully our first convention. But he modestly claims that "most of the ideas and 'push' came out of Pratt and Deussen, and as 'Secretary' I was kept pretty busy 'implementing' their ideas." Many know Dave Donoghue best in the important part he played in the early history of the Association. After becoming a member in 1919, he worked faithfully through the years serving on many committees. He was secretary-treasurer (1927), second vice-president (1928), and regional director from Houston from May 1924 to 1927. He is author of a number of scientific papers on geology and engineering. His avocation is Texas history; he belongs to some five historical societies. He has published several papers on the early explorers of Texas. One noteworthy paper is "Explorations of Albert Pike in Texas," published in the Southwestern Historical Quarterly. Interested in the "good neighbor policy," he is a director of the Texas Pan-American Association.

OUR HONORARY LIFE MEMBERS

I have gathered from several sources that Wallace E. Pratt initiated the idea of holding the American Association of Petroleum Geologists Convention in Houston in 1924, but it is almost certain that the idea was discussed with his very close friend—Alexander Deussen. Both men were past presidents of the Association—Mr. Deussen in 1918, Mr. Pratt in 1920. Mr. Deussen served as its first vice-president in 1917, Mr. Pratt as regional associate editor from 1920 to 1927. Both men were greatly interested in this organization; both devoted much of their time to help formulate its policies and to help guide its destiny. The success of the Association—now the largest group of geologists in the world—is their reward.

Both were also greatly interested in the group of geologists here in Houston. They believed in an organization of geologists for the "purpose of fostering friendship within our ranks and of permitting the mutual benefits that would arise from the occasional exchange of data and ideas in a profession then quite new but expanding rapidly."

So, after the convention in Houston, these two men continued to give of their time, their interest and their efforts to help keep alive the newly organized Houston Geological Society. As an appreciation of their great service, both were made honorary life members of the Society—Pratt in 1937, Deussen in 1941.

Mr. Deussen preceded Mr. Pratt to Houston by a number of years. He was born and reared in San Antonio. After receiving his Bachelor of Science degree in 1903 from the University of Texas and his Masters degree in 1904, he became a member of the teaching staff in the geologic department. At the same time he held the position as assistant geologist on the United States Geological Survey. He left Austin in 1915 to become associated with the Gulf Production Company. His assignment was the Humble salt dome and he worked out of Houston. In August 1916, he went into consulting work here; as consultant he represented numerous clients in their explorations, production, and leasing activities. He was vice-president of the Marland Oil Company in charge of Gulf Coast operations from 1924 to 1928, but he returned to consulting work in 1928. His main activity now is evaluation work.

As mentioned previously, the first group of paleontologists in Houston were women, and all lived together. Mr. Deussen was Laura Lee Lane's boss, and the others continually heard his praises sung. To them, of course, he was "the" authority on Gulf Coast stratigraphy, and to field geologists his Professional Paper 126 was "gospel." All through the years this paper has been the foundation of Tertiary field mapping in southwest Texas and, like R. T. Hill's monumental works, it has stood the test of time.

Mr. Deussen, one of the founders of the Association, was elected its first vice-president and its second president. All through the years he has been very active on committees. He was vice-chairman of the General Business Committee in 1930 and 1931, Trustee of the Revolving Publication Fund from 1932 to 1934, and a member of the Committee on Geologic Names and Correlation from 1933 to 1939. When not serving on committees, he has been active behind the scenes. He is also a member of the American Institute of Mining and Metallurgical Engineers and has been the secretary of the local group for the last ten years. As a member of the American Petroleum Institute, Deussen was one of a committee of eleven who prepared the report in 1925 on oil reserves of the United

ROCKHOUNDS OF HOUSTON

States and was also a member of a committee to prepare a similar report in 1932. In 1937 a permanent committee on reserves was appointed by the American Petroleum Institute; Deussen became a member in 1939 and is still serving. During World War II he was a member of the Petroleum Administration for War committee on reserves and availability in District 3.

Mr. Deussen has always devoted much time to the Houston Geological Society in the way of counsel and guidance. Because he made such a success of our first convention, the Society's executive committee called upon him to steer the second convention, held during the dark days of the depression in the 'thirties. Again, when the Association was to hold its 1941 meeting in Houston, the executive committee of the Society felt there was only one person to put this convention over—Alexander Deussen. Due to his management and drive, all three sessions were considered tops—the first for its elaborateness, the second for its economy, the third and most expensive, for the largest registration in the history of the Association.

In reviewing Mr. Deussen's scientific contributions, Mr. L. T. Barrow remarked of Water Supply Paper 335 and Professional Paper 126 they were two outstanding publications which should be in every geologist's library. He pointed out that the field work for these two publications was done in the "horse and buggy days" when geologists really worked. Further, the caliber of work done by geologists in those days is not matched by the geologists of today, according to Barrow. To his mind, Alexander Deussen ranks along with R. T. Hill as one of the outstanding pioneer geologists of Texas. He said, "Of course, Deussen followed Hill somewhat in time, but because of the difficult field conditions under which he worked—lack of roads and maps—he is a great pioneer geologist. He has probably contributed more to the discovery of oil here on the Gulf Coast than any other geologist."

Barrow pointed out that Deussen was the first to discover the Mexia fault. Although this valuable bit of information was not published by the U.S.G.S. until 1914, Deussen did the field work for his report—"The Geology and Underground Waters of Southeastern Texas Coastal Plain"—back in the summers of 1907 and 1908. Later George C. Matson, also of the U.S.G.S., did detailed work on the Mexia-Groesbeck area and in 1916 published a map showing the Mexia anticline contoured on the top of the gas sand cap rock. At this time, most geologists were advocates of simple anticlines as possible oil traps rather than faulting, and many were still of that school as late as 1922, when Pratt and Lahee gave their paper: "Faulting and Petroleum Accumulation at Mexia, Texas." Mexia in 1920 established a new type of field—the Fault Line Field—and by the time Powell field came in (1923) faulting as a controlling factor in the accumulation of oil was established.

Mr. Barrow cited another instance of Mr. Deussen's discriminating work. He said: "Many of us—I know I did—had Mr. Deussen's map from Professional Paper 126 (1924) under the glass top of our desks, but none of us realized the significance of the fault Deussen had indicated in Guadalupe County—now the Darst Creek fault. It was not until 1928 that the significance of this fault was recognized, and a detailed map was made. But remember that Deussen's field work for this report was done from 1909 to 1913 when there were few roads and trails and a dense undergrowth of vegetation hindered a geologist greatly in making his traverses."

Deussen was also the first geologist to describe and outline the fault system in the Corpus Christi area which has led to the discovery of many oil fields.

ROCKHOUNDS OF HOUSTON

Paul Weaver, when discussing Deussen's early work, said that the latter had enhanced the standing of the geologist here in the Gulf Coast with his early work on the geology and underground water supply of the Coastal Plain. The development of the railroads, particularly in East Texas, the springing up of many saw-mills, and the growth of the population in small communities and cities necessitated an increased water supply. "This work of Deussen's," Weaver said, "put the geologist in the minds of many people and made easy their acceptance of the geologist in the oil industry. In this way, Deussen made a great contribution for the geologist."

Later, as a Director of the Schlumberger organization when organized in 1932, Deussen was instrumental in introducing the electric well logging on the Gulf Coast, which has proved a very valuable tool for the geologists.

Alexander Deussen, dean of Gulf Coast geology, is a native Texan who will be a historical personage in the petroleum industry in the years to come.

Mr. Pratt tells the story that all oil companies in Houston except Humble had geologists. Wanting to be in style, the Humble hired him and gave him the title of chief geologist, as he was the only geologist. But by this time—March 1, 1918—Wallace E. Pratt was already a geologist of wide experience. After receiving his Master's Degree from the University of Kansas in 1909, he accepted a position as geologist in the Division of Mines, Bureau of Science, Philippine Islands. While there, he was author and co-author of some forty papers, covering such diverse subjects as "Philippine Pottery," "Portland Cement Manufacture in the Philippines," "Petroleum in the Island of Cebu," "Iron Ores of the Philippines," and "Coal Mining in the Philippines."

In one of his reports—"The Eruption of Taal Volcano"—Mr. Pratt described his thrilling experience of visiting Taal during its tremendous steamblast eruption in 1911. Earthquakes began at 8:00 p. m. January 27 and continued until January 30 when the main crisis occurred. At 2:20 a. m. a double explosion took place which was heard 310 miles away and which tore away most of the floor of the main crater. On the afternoon of the same day, January 30, Mr. Pratt and a photographer visited the crater for half an hour. Fifteen minutes after they left, an eruption occurred deluging the island and sides of the volcano with very wet mud, steam and gases. The mud, charged with sulphuric acid, destroyed all animals and trees. "Not even a blade of grass escaped."

In 1916 Mr. Pratt returned to Texas where he accepted the position of division geologist for the Texas Company at Wichita Falls under E. G. Woodruff. During the two years he was with The Texas Company he did some work in Cuba.

Mr. Pratt's first work with Humble was at Fort Worth, where he was in charge of the North Texas, Ranger and Cisco district. Early in the Spring of 1920 he moved his office and family to Houston. Because of his "technical competence and good judgment" he was elected a director of his company in 1924. He became vice-president in 1930.

Through the years, Mr. W. S. Farish, President of the Humble, and Mr. Pratt worked in close collaboration. It was natural then that Mr. Farish, when elected president of the Standard of New Jersey in 1937, would express his need of Pratt as a member of the Standard's executive committee. Pratt resigned from Humble and went to New York as a director of the New Jersey Company in 1937, becoming vice-president in 1942. He resigned from his position in New York in 1945 to retire to his ranch at Frijole, Texas. "On the occasion of his retirement, the Jersey board credited Mr. Pratt's leadership and foresight with bring-

ROCKHOUNDS OF HOUSTON

ing the Company to its present accepted position as an authority on existing and potential world oil resources."

Mr. Pratt, a great geologist and engineer, is a member of a number of scientific societies and the recipient of many honors. One of the latter was the distinguished service award by the Texas Division of the Mid-Continent Oil and Gas Association in 1937. Another—and I am sure the one that means the most to him—is the Sidney Powers Memorial Medal awarded March 27, 1945, at the A.A.P.G. Convention at Tulsa in recognition of distinguished and outstanding contributions to or achievements in Petroleum Geology. This award is the highest honor which can be bestowed by the profession of Petroleum Geology. So, fittingly, was Mr. Pratt chosen the first recipient of this award. He and Sidney Powers were close and understanding friends from the time in 1914 when Powers arrived in Manila. Without notice he stood in the doorway of Pratt's office in the Division of Mines and in a "strident voice" he "blurted out" his name—"Powers! S. Powers!" In such a manner he introduced himself, and "at once proceeded to demand, in effect" that Pratt take him to explore the rather inaccessible Philippine caldera, Lake Bombon, and the crater of Taal Volcano. This they did. Pratt describes Powers' visit in these words: "For a week we slept under the open sky,—tramped, debated and speculated among the rocks; then I returned him to his boat in Manila an hour before its departure, and he was gone."

Geology symbolizes to Mr. Pratt his philosophy of life—the brotherhood of man. He once said: "It requires no act of faith for the geologist to embrace the concept of the brotherhood of man. The past vicissitudes of living matter on earth proclaim it to him in a chorus of evidence so overwhelming that it drowns out any possible voice of dissent. That a man should love his neighbor as himself is a tenet explicit in the same record which, deeply imprinted in the rocks of the earth's crust, reveals to the geologist the final supremacy of the principle of 'mutual aid' over the doctrine of 'the tooth and claw.' What the geologist finally perceives, then when he carefully dissects the rule of the 'survival of the fittest,' is the emergence of the soul of man." Mr. Pratt's "Sermons in Stones"—a philosophical treatise on the unity of the universe and the brotherhood of man—is one of the finest sermons I have ever read.

Mr. Pratt is not only a philosopher, but also a poet. When describing an auto trip through the southwest with Sidney Powers, he wrote: "Again, we stood one evening on the crest of Hogback, the first oil field to be discovered on the communal lands of the Navajo Indians in San Juan County, New Mexico. Far to the west of us, rising to a height of 1,500 feet above the level plains, towered Shiprock, that remarkable intrusive spine which nature through the ages has sculptured into a gigantic mainsail, delicately poised before the driving wind of the desert. As we gazed at this graceful silhouette, etched by the last rays of the setting sun with a rim of jagged incandescence against the dark winter sky, we gradually became one with the Cosmos, and long before we were again aware of each other night was black around us." Who but a poet and a philosopher could express with such beauty his feeling of "oneness with the Universe"? Fortunate, indeed, are they who have had the rare privilege of being the friend or associate of this great, though very modest man—Wallace E. Pratt.

In 1945 the Society bestowed upon Dr. E. H. Sellards of Austin an honorary life membership for his outstanding contributions in the field of petroleum geology as well as other scientific accomplishments.

On visiting the Field Museum with Dr. and Mrs. Sellards during the 1946 A.A.P.G. Convention, we saw in a diorama the fossil cockroach—"Archoblattina

ROCKHOUNDS OF HOUSTON

becheri"—which Dr. Sellards had named in honor of his professor at Kansas. I learned for the first time that Dr. Sellards was an invertebrate paleontologist. As a vertebrate paleontologist, fossil man has always been his absorbing interest.

Born in 1875 in Carter City, Kentucky, Elias Howard Sellards moved to Kansas with his family when he was a young boy. After receiving his B.A. and M.A. degrees from the University of Kansas, he went to Yale where he received his Ph.D. in 1903, giving his doctor's dissertation on the subject, "Fossil Insects and Plants of the Late Paleozoic of Kansas." From Yale he accepted a teaching position at Rutgers University and later taught at Florida State University. In 1907 the Florida Geological Survey was established and Dr. Sellards became its first director.

Near the close of the first world war, Dr. Sellards came to Texas to the Bureau of Economic Geology as successor to C. L. Baker, who had resigned to go with the Rio Bravo Oil Company in Houston.

Dr. J. A. Udden was then Director of the Bureau. Upon receiving an offer to come to Texas, Dr. Sellards first sent a reply by letter saying that he could not give up his Florida work where he had been Director of the Geologic Survey for twelve years. However, the course of events was changed by the arrival in Tallahassee of a visitor—Dr. E. H. Barbour. Barbour, then State Geologist of Nebraska, spoke so glowingly of the geologic possibilities in Texas that Sellards changed his mind and accepted the position, sending a telegram which reached Austin in advance of his letter. He often speaks of his deep gratitude to Dr. Barbour for his advice.

Dr. Sellards became Associate Director of the Bureau in 1925, Director in 1932, and Director Emeritus in 1945. He became professor of geology in the graduate faculty of the University in 1925. He has been Director of the Texas Memorial Museum since 1938, the Museum having been opened to the public on January 15, 1939.

Sellards came to Texas primarily because of promising research possibilities. In carrying out the survey program initiated by Dr. Wm. B. Phillips and Dr. J. A. Udden, he has had the cooperation of many persons—members of the staff and others who were temporarily with the Bureau, many of them during their younger years. In the field of map making, Sellards issued the first statewide structural map (1936) and a statewide mineral locality map (1945).

The Texas-Oklahoma boundary dispute came into prominence about 1921. In connection with this suit Dr. Sellards was given leave of absence from the Bureau and became attached to the office of the Attorney General of Texas under Judge Cureton. In this service he directed preparation of the scientific evidence presented in the suit by the State of Texas. The principal participants in helping him assemble the scientific evidence and maps were R. T. Hill, B. C. Tharp and Arthur Stiles. The opposing scientists, representing the State of Oklahoma and the United States, were L. C. Glenn, Vanderbilt University; H. C. Cowles, University of Chicago; and Isaiah Bowman, then Director of the Geographical Society of America, now president of Johns Hopkins University. Some of the scientific results obtained were published in University of Texas Bulletin 2327.

Dr. Sellards' familiarity with Florida underground water solution effects caused him to be called back to that state on an occasion when the sudden formation of a solution sink resulted in the wrecking of a train.

Aside from stratigraphy, economic geology, and paleontology, his interests have led him from time to time to examine the records left by the earliest arrivals of man on the North American Continent. In connection with his geologic explora-

ROCKHOUNDS OF HOUSTON

tion and fossil collecting, human relics were found at Vero, Florida. The find aroused a good deal of interest and some controversy, so two conferences were held at the locality. Geologists and anthropologists from the National Museum, U.S.G.S., University of Chicago, Yale, and Johns Hopkins were present. Discussions about the find were active through the years 1916-18. A symposium based on the conferences was published by the *Journal of Geology* in 1917. Similar finds were later made at Melbourne, Florida, by Gidley of the National Museum. The principal question involved was the association of human skeletal remains and relics with extinct animals, chiefly mammalian species, commonly regarded of Pleistocene age.

Through information from Judge J. A. Mead of Miami, Texas, Sellards in 1937 uncovered a "fossil" watering place which contained several elephant skeletons. With these were three dart points and one hide scraper which the early plains hunters had used on the elephants. A few finds had been made previously by others at Clovis, New Mexico; Dent, Colorado; and Abilene, Texas, where similar darts had been found with elephant bones, but the confirmatory evidence at the Judge Mead locality in Roberts County, Texas, was a considerable contribution to knowledge.

In 1895, the year when Sellards was a freshman at the University of Kansas, H. T. Martin, working under the direction of Dr. S. W. Williston, found a dart point with bones of an extinct bison in Kansas, under conditions suggesting that it probably had been used in hunting the bison. In later years, dart points were found in New Mexico and elsewhere which had undoubtedly been used on a similar extinct bison. The most common type of the bison hunting dart point came to be known as Folsom or Folsom fluted. Some others are known as Eden Yuma and Scottsbluff Yuma. In the summer of 1945, Dr. Sellards and associates, Glen Evans, Grayson Meade, and others brought to light at Plainview, Texas, still another type of dart point used in hunting an extinct bison. This recently described new type of dart used by early man has been named the Plainview type.

Among all these records of early man, the greatest mystery calling most loudly for more investigation are the carved stone heads of Henderson County, Texas, which Dr. Sellards insists are the oldest known carvings of the western world, late Pleistocene in age.

This quiet, dignified, unassuming, versatile scientist has crammed his seventy years full of activity, has contributed greatly to geology in general, to petroleum geology, and to paleontology, and is still very active in his work as Director of the Texas Memorial Museum. Because of his achievements he was in March 1946 made an honorary member of the American Association of Petroleum Geologists.

OUR TWO NEW ENGLANDERS

In those memorable days of the 'twenties, the geologists of Houston did field work and spent most of their time out of town, so only 25 to 35 members attended the luncheons regularly. Up to August 1928 our meetings were held the first Friday of the month at the University Club. Pratt, Suman, Deussen, Barton, DeWolf, Hager, Vetter, and Bevier always attended. There were no planned programs. During this period, the scientific interests were: the origin of salt domes, the origin of cap rock and the source and origin of oil. Either Mr. Deussen or Mr. Suman would raise a question on one of these topics. That would be all the opportunity "Doc" Barton needed to expound his theories or to provoke an animated but friendly argument. Or, there would be a discussion of some new well just completed, or the swabbing of dope on some "tight" well.

Merle Israelsky recalls his vivid impressions of those early meetings of the Society. To his surprise, he found that the youngster fresh from college had the opportunity to rub elbows with the "big boys" and to know the "personalities" of the Society. But the discussion on salt domes by our eminent geologists had a radical ring to one just out of the class-room.

One of these eminent geologists who contributed much to our knowledge—particularly to those young in the profession—was Sidney Powers. The history of the Houston Geological Society would not be complete without introducing Sidney Powers to those who, coming later, did not have the good fortune to know him.

After the Amerada Petroleum Company opened a Houston office sometime prior to the 'twenties, Sidney Powers, chief geologist, with headquarters in Tulsa, spent considerable time here. This afforded many of us the opportunity to know this brilliant scientist. His altruism and his love of the science of geology were his two outstanding characteristics. Wallace E. Pratt has said—"for this fine scientist, geology was a way of life. Geology was his labor and geology was his recreation. Mentally and materially, geology gave him each day his daily bread."

Powers was a fine scientist, but the characteristic that made him stand apart from others was his unusual interest in his fellow geologists. His main concern was that of the men out of employment, and, according to E. DeGolyer, "he ran, single-handed, an informal employment bureau for geologists. This became so well known that men sought him when they needed jobs; chief geologists consulted him when they needed men." He constantly urged and helped young geologists to publish; frequently, their manuscripts were rewritten by him before they were published. Once when a geologist was reluctant to publish a paper on a subject Powers considered worthy of publication, he wrote the paper himself and signed the geologist's name. His loyalty to his friends was extraordinary. Probably no one knew or kept in as close contact with as many geologists as did Sidney Powers. He was a good correspondent and, in addition to his formal letters, kept up a constant stream of post-cards, passing on a bit of geological information he picked up, the name of a book, or a request for the publication of a paper.

In his relatively short career, his scientific papers were numerous; his bibliography contains 124 titles. His travels took him to Japan, Hawaii, the Philippines, and Alaska, in which countries he studied general geology and vulcanology. His papers cover the general geology of New England, Nova Scotia, Spanish Honduras and Guatemala, Rocky Mountains, Oklahoma, and Texas. He also published on the geology of salt domes, petrology and sedimentation. His outstanding contributions to the science of petroleum geology were "his early recognition of the import-

ROCKHOUNDS OF HOUSTON

ance of unconformities" in the subsurface and "his bringing into proper perspective in science the functional importance of buried hills as structure-building agencies, particularly in the Mid-Continent region." He was the first to recognize the possibilities of the Crinerville anticline, Carter County, Oklahoma, although it had been condemned by many competent petroleum geologists.

Sidney Powers—in whose memory the Association has established a memorial Medal Award, the highest honor bestowed by the profession of Petroleum Geology—was a charter member of the Houston Geological Society and kept up his membership until the time of his death in 1932.

He gave much of his time and energy to both the Geological Society of America and the American Association of Petroleum Geologists. He was one of the founders of the Association and was elected its president in 1930.

E. DeGolyer has said of his friend: "Modest and retiring, he spent much of his life in helping others. All his powers and talents were pointed to a single objective—the advancement of the science of geology. His place will not be filled."

Another student of the pure science of geology was Donald C. Barton. Like Sidney Powers, Barton made invaluable discoveries which had direct bearing on the problems of the petroleum industry.

In many respects the careers of these two outstanding petroleum geologists were parallel. In the words of Wallace E. Pratt: "Both were New Englanders. Both were educated at Harvard. Both held the coveted Sheldon traveling fellowship. Both came to the southwest for their life's work. Both fell early under the spell of close association with that young dean of petroleum geologists, E. L. DeGolyer. Both were impatient of outward form and ceremony, yet possessed of deepest spiritual convictions. Both were studious, discerning observers who wrote much of their own observations and inspired fellow workers also to write. But above all else, both were stamped with that forthright intellectual candor which typifies the New England scholar."

Before serving two years overseas in World War I, Barton taught engineering geology at Washington University, St. Louis, Missouri. After the war he entered the commercial field. Ray Goodrich once remarked that the first time he saw "Doc" was in 1918, when the latter was working at Hackberry, Louisiana, as field geologist for the Amerada. Barton moved to Houston in 1919. In 1921 he transferred to the Rycade and became its chief geologist in 1923. Four years later he went into independent consulting practice. Then, in 1935 he joined the staff of the Humble Oil & Refining Company, where he remained until his death.

In 1922 Barton went to Budapest to study geophysics and to bring back the first torsion balance used on the Gulf Coast. He then became geophysicist as well as geologist. He took good naturedly all the "kidding" about his doodlebug and, to the chagrin of the skeptical, discovered Nash dome in 1924, the first geophysical discovery in the United States.

According to Paul Weaver, Barton was also the first geologist to use soil analysis as an indication of an oil field. Weaver recalls the first time he met Barton was in Louisiana in 1920—the latter had just made an analysis of the soil for acidity near Holmwood. On Barton's findings, in 1921 one of the deepest wells of that time (5,135 feet) was drilled near the town in Section 29, Township 10 South, Range 7 West. Unfortunately the test was a dry hole.

Although a petroleum geologist and geophysicist whose main activity was that of finding oil, Barton made outstanding contributions in the field of pure science. While a student, he did field work under Douglas W. Johnson and acquired a deep interest in physiography, an interest which later led to his thorough study of

ROCKHOUNDS OF HOUSTON

the Gulf Coastal Plain. On December 27, 1930, he presented before the Geological Society of America his discovery that the coastal plain of southeastern Texas was deltaic in origin, "composed of the coalescent deltas of late Pleistocene Trinity and Brazos Rivers." Up to then the widely held conception was that it was an uplifted marine plain. Barton pointed out that the "Hockley scarp, one of the most striking physiographic features of the region, is a flexure scarp partly buried by alluvial deposits." Barton, with his knowledge of the physiography and stratigraphy of the Coastal Plain and his wealth of geophysical data, along with his gift of imagination, was the first geologist to visualize the Gulf Coast geosyncline. This discovery, which was published in 1933 with two co-authors, is considered his most outstanding scientific contribution. His scientific interests were varied, but the origin of salt domes intrigued him for years, and his publications indicate the changes in the trend of thought from the time their origin was thought to be volcanic. Barton was interested not only in the origin of salt and cap rock, but also in the domes as geologic structures and in all related aspects such as "the mechanics of their growth; their tendency to 'mushroom'; their 'overhang'; isostatic adjustment; the balance of compaction versus uplift; the 'tear drop' effect of extreme deformation." Wallace Pratt said that Barton comprehended "all of these and other aspects of salt dome geology—earlier and more clearly than most of his fellows." The origin of oil was another of his pet scientific problems, and he published two valuable papers on the natural history of Gulf Coast crude oil. As geophysicist, he wrote many papers on subjects in that field.

In recognition of his eminence as a petroleum geologist, Barton was elected president of the American Association of Petroleum Geologists in 1938. Like Sidney Powers, Donald Barton in his service to the Association "surpassed all but a few of its members." He also served as president of the Society of Petroleum Geophysicists, "in the founding of which he was a moving spirit." As one who helped to organize the Houston Society, he served as its third president in 1926-27.

A great loss befell the Society when Donald C. Barton died on July 8, 1939. Barton—called "Doc" by his friends—played such a dominant part in the Society from its beginning, it was difficult for many of us to realize he would no longer stimulate us with his enthusiasm and bountiful energy of thought.

As a member of some fifteen scientific societies, including a German geophysical society and a French geological society, Barton kept an active interest in their publications. He collected a voluminous library which, after his death, Mrs. Barton and his daughter generously donated to the Houston Public Library. "Doc" Barton will always be "keenly missed and kindly remembered" by all who knew him.

A NEW TECHNIQUE — GEOPHYSICS

The history of the Houston Geological Society is the history of a new science —petroleum geology. Applied geophysics is an important technique of this new science. A surface elevation was the evidence for drilling Spindletop in 1901; gas and oil seepages were the evidences for drilling Sour Lake in 1901; paraffin dirt, the evidence for drilling Goose Creek in 1907. By 1920 the Gulf Coast had been combed for all such "direct indications" of oil fields, so new exploratory techniques had to be developed.

Not to be overlooked was the wigglegstick. Many wells were drilled by two "wigglegstick authorities"—Dr. Griffith of Houston and Mr. Drummett of Pierce Junction. They pursued their technique well into the 'twenties; their dry holes contributed much subsurface data. During the 'twenties, geologists began to search for sulphur water wells, as such water was considered an indication of a salt dome. Many a bright, shiny quarter was dropped into a jug of sulphur smelling water. Also, many a jar of gas was analyzed with the hopes of discovering a gas that would indicate an oil field.

E. DeGolyer, while in London in the summer of 1914, became interested in the applied use of geophysics in prospecting for oil, and in a conversation with P. C. A. Stewart he learned of the torsion balance that had been invented by Baron Roland von Eötvös. DeGolyer began to investigate the surveys that had been made in the great Hungarian Plain, and for the next six years he watched the progress of geophysical experiments in Europe. In 1920 he decided to experiment for himself as he had learned that instruments could be purchased. As president and general manager of the Amerada and vice-president and general manager of the Mexican Eagle of Mexico, he arranged for a joint field research program between the two companies. Construction was started on two instruments in August 1921, and in May 1922 DeGolyer sent Barton to Budapest to receive the finished instruments and to study the method of their use.

Barton brought one instrument back to Houston and housed it in the basement of the Humble Building. The oil fraternity was all agog with curiosity over this "doodle-bug" as it was called by the skeptical. Barton, however, kept his "doodle-bug" well guarded and surrounded with mystery.

According to DeGolyer, the first survey made with this instrument was on Spindletop dome in December 1922, the first, or one of the first surveys made by geophysical methods in the United States. Several other known domes were surveyed and various prospects were analyzed with indefinite results. DeGolyer said: "These early surveys were entirely inadequate, both as to area and interpretation, to test the method and we were about to abandon it as too expensive and inexact when a survey of the Nash Ranch in Fort Bend County, Texas, gave a gravity maximum as definite and exact as that of Spindletop. Drilling proved a salt dome in November 1924, and oil was discovered on the flank of this dome on January 3, 1926. This was the first successful geophysical prospect to be proved in the United States and was probably the first oil pool to be discovered by geophysical methods in the entire world." The torsion balance had its ups and downs until 1938 when it was displaced by the gravimeter.

E. DeGolyer, in his "Early History of Geophysics," said that as early as 1905-06 L. P. Garrett "had conceived the idea of using seismic refraction surveys as a tool to prospect for salt domes . . . and, together with Mr. Robert Welch of Houston, had made inquiries as to instruments and methods. Instruments were

expensive and not really adapted to work on the scale required and so the matter was dropped."

In 1920, before the Association at its annual convention in Dallas, Dr. J. A. Udden presented his paper—"A New Method of Making Underground Observations"—in which he suggested that some such instrument as the seismograph could be used to record reflections of earth waves started on the surface by an explosion. Speaking specifically, he said: "A record of the emerged reflection of this wave from the upper surface of the Ellenburger limestone might be registered on an instrument placed at some distance from the point of explosion. The record would, of course, be a component of the direct and the reflected waves." Present day reflection shooting is based on this data of Udden's.

Four years later, in March 1924, Alexander Deussen introduced the seismograph to the Gulf Coast when he brought Dr. L. Mintrop of the Seismos Company from Oklahoma to Houston. According to Deussen, the first survey was a refraction type on the Wadsworth ranch. Work was done under Mr. Deussen's direction for the Marland, with John Weinzierl representing the company in the field.

Another Mintrop party commenced work on the Gulf Coast five or six months later under the direction of L. P. Garrett. Before the end of the year, this crew discovered Orchard dome in Fort Bend County, Texas, the first seismic discovery for the United States and possibly the first in the world. This refraction technique, in spite of its brilliant success, had a short life span—introduced in 1924, it was extensively used by 1926; after reaching its peak in March 1929, it declined rapidly, and it was later replaced by the reflection method as outlined by Dr. Udden.

With geophysical exploration for petroleum firmly established on the Gulf Coast, Donald C. Barton, in July 1929, wrote to a number of leading geologists and geophysicists relative to the feasibility of forming a geophysical society. Encouraged by replies to his letter, Dr. Barton suggested a luncheon meeting at the University Club on January 30, 1930. A committee consisting of John F. Weinzierl, J. Brian Eby and G. H. Westby was appointed to investigate the matter of affiliating with the A.A.P.G. This committee made its report at a second meeting held March 7, 1930, but the Society of Economic Geophysicists, as it was first called, was not definitely organized until March 11, 1930. Donald C. Barton was elected President; E. E. Rosaire, Vice-President; John F. Weinzierl, Secretary-Treasurer. On May 20, 1930, the Constitution and By-Laws were adopted and the name was changed to Society of Petroleum Geophysicists. In 1932 the Society became affiliated with the A.A.P.G. On January 1, 1937, the name was officially changed to the Society of Exploration Geophysicists. As the S.E.G. was organized in Houston by members of the Houston Geological Society, most of its officers have been from the membership of our Society. A list of these is given in a later chapter.

E. DeGolyer, called "the father of geophysical research," in 1940 was awarded the Anthony F. Lucas gold medal by the American Institute of Mining and Metallurgical Engineers for "initiating applied geophysics, directing the early practical seismic-explorations and fostering applied science in financing, developing, and producing oil." While president of both the Amerada Petroleum Corporation and the Rycade Oil Company, he had division offices in Houston where he maintained large geologic staffs. As a charter member of the Houston Geological Society, he continued his membership until about 1940, although he was not always an active member.

ROCKHOUNDS OF HOUSTON

Mr. DeGolyer, affectionately called "De" by his associates and friends, is a man of diverse talents. He is a member of a long list of scientific societies and has served as president or director of most of them. As a geologist he has written many technical papers. As a scientific leader he served as president of the American Association of Petroleum Geologists in 1925-26 and in 1945 was presented with an honorary membership. He was president of the A.I.M.M.E. in 1927 and has been a director of the American Petroleum Institute since 1935. As teacher, he was a Cyrus Fogg Brackett lecturer in 1939 at Princeton University; Distinguished Professor in 1940 at the University of Texas; and Lewis Clark Vanuxem lecturer in 1941 at Princeton. Among his honors, he received the Distinguished Service Award in 1939 from the Texas Mid-Continent Oil and Gas Association "in recognition of his distinguished service and able leadership in the development of the Texas Oil Industry."

OUR FIRST TEN YEARS

The success of our first convention kept the geologists enthusiastic for months. Meetings continued to be held on the first Friday of the month until August 1928 at the University Club, which had moved to its own building on Rusk and Austin. The Junior League served the luncheons. And were they good!

In 1924 the men invaded the women's field of micro-paleontology. Merle Israelsky arrived February 29 to take the position as micropaleontologist with the Rycade Oil Company. Marcus A. Hanna opened a paleontological laboratory for the Gulf company in July; and John C. Miller came with the Texas Company in August to fill the place made vacant when Hedwig T. Kniker resigned to go to West Texas.

At the annual business meeting in October, F. E. Vaughan was appointed chairman of the committee to draft a constitution and by-laws which were adopted April 1, 1925. The objectives of the Society were "the stimulation of interest in geology in this territory and the promotion of social and professional intercourse among local geologists."

In the fall of 1924 Mr. Deussen complimented the members of the Society with a dance at the Houston Country Club. This dance initiated the social activities of the Society and from that time on it has been the custom to have two dances a year. Some of these early dances are remembered as very enjoyable and festive affairs.

The dance given at the University Club November 27, 1925, is one that stands out in my memory. Fred Sealey, Laura Lee Lane and Emma Jane Coffman comprised the dance committee. The atmosphere was romantic—festoons of Spanish moss, dim lights from Chinese lanterns and soft music by Blanchard's Orchestra. Of course the favors of caps, horns, drums, and serpentine added to the fun. Punch was served through the evening; not too late in the morning, refreshments of cakes, nuts and ice cream were served. This was one of our expensive dances, in fact, it put the Society in the red, but the forty members attending and their twenty-three guests had a wonderful time. The members who attended this dance were: Alexander Deussen, Laura Lee Lane, George Sawtelle, L. P. Garrett, Elisabeth Stiles, Charles Jaqua, Grady Kirby, Dilworth Hager, Paul Leavenworth, Frank DeWolf, Dugald Gordon, R. B. Paxson, S. A. Judson, W. E. Pratt, Emma J. Coffman, Alva C. Ellisor, E. B. Picton, D. C. Barton, F. B. Plummer, Andrew Gilmore, H. W. Rose, Karl Young, A. E. Oldham, Esther Richards Applin, Paul Applin, John Suman, John Vetter, Grace Newman, J. C. Myers, E. V. Hanson, Donuil Hillis, J. Brian Eby, Raymond F. Baker, F. C. Adams, Robin Willis, John C. Miller, F. C. Sealey, D'Arcy M. Cashin, J. Boyd Best, W. Armstrong Price, and Wayne Bowman.

In January 1925 the Society became an investor. About a thousand dollars had been left over from the fund collected to finance the Convention. On the advice of Wallace E. Pratt, this money was invested in ten shares of Houston Gas and Fuel Company preferred stock costing \$962.72. This investment paid an annual dividend of \$70.

In July 1925 Dave Donoghue resigned as secretary-treasurer because he was leaving Houston. W. D. Blackburn was elected by acclamation to finish out the term. As a token of appreciation for his services to the Society, Dave was presented with a beautiful gold watch.

At the annual business meeting in October, new officers were installed with

ROCKHOUNDS OF HOUSTON

Dilworth Hager as president; Elisabeth Stiles, vice-president; and John Vetter, secretary-treasurer. There were nine women who were charter members of the Society and they at all times were made to feel they were definitely a part of the Society with equal responsibilities and privileges. Three of them served as vice-presidents. Other early Societies were not as generous in their attitudes.

The social activities of the fall started off with a pleasant evening in the home of Mr. and Mrs. Wallace Pratt on November 9 with the first showing of the marvelous moving picture film, "Geologizing in the Wilds of Arkansas." The announcement of the meeting stated: "This film takes advantage of the histrionic ability and the geologic technique of a number of our prominent local members and is of outstanding interest to all geologists. The film was just recently released by Sidney Powers, author and director, the Will Hayes of the geological profession."

At the December meeting one matter of discussion was how to spend the money which had accumulated in the treasury. Mr. Pratt made the motion the Society investigate the establishment of a Geological Library, in connection with Rice or the Public Library. R. H. Goodrich, Sidney Judson and Elisabeth Stiles were appointed to serve on the Library committee. Other matters discussed were the holding of night meetings and lectures by distinguished geologists. Mr. Pratt suggested a trial meeting, so the first of the night meetings was held February 5, 1926, at the University Club. Donald C. Barton discussed "Increase in Gravity of Oil with Depth, at Orange," and Alva C. Ellisor gave a talk on "Coral Reefs in the Oligocene of the Gulf Coast." Refreshments were served later, and the geologists lingered on for a social hour.

This first night meeting proved so successful it was decided to have two distinguished geologists come to Houston to give stimulating lectures. On February 26 the geologists and their wives honored Dr. Charles Schuchert of Yale University with a dinner at the University Club. A large group heard this distinguished geologist talk on his favorite subject of "Llanoria." On the evening of April 30, Dr. J. A. Udden gave a lecture on the "Potash Deposits of West Texas." After the lecture there was a social hour with refreshments.

A night meeting was held in the auditorium of the Public Library in March when Paul Weaver gave an interesting talk on "Salt Domes and Salt Dome Oil Fields of the Isthmus of Tehuantepec, Mexico."

Another of the distinguished lecturers was Dr. R. C. Moore of Kansas, who had just completed an exciting trip through the Grand Canyon. On June 16, 1926 he favored the Society with moving pictures of this trip, also an account of his experiences and the geology of the Canyon.

Near the close of Dilworth Hager's regime, (1925-26), John Suman had a brilliant idea. At the luncheon in September, he said, "Since Alec gave us a dance, I think it would be a nice gesture for each retiring president to give us a dance." He made the motion—which was recorded in the minutes—that "all outgoing presidents of the Society be required to entertain the entire Society within thirty (30) days of retirement." Rather flustered, Dilworth rose from the chair and protested. No one had the courage to second the motion, so the motion was lost for want of a second.

In 1925 the Humphreys Corporation moved its headquarters to Houston. Its large geological staff added some fifteen names to the list of membership of the Houston Geological Society. Included were F. Julius Fohs, vice-president, in charge of geological exploration; Dr. Frank W. DeWolf, chief geologist; Dr. George Steiner, chief geophysicist; Paul T. Seashore, paleontologist; also Dugald

Gordon, Sidney A. Judson, L. H. Williams, Fred Tough, Roland Paxson, Paul Holland, M. A. Davey, Jr., W. B. Roland, J. O. Seashore, P. F. Morse, and George Pinkley. I well remember the Society was quite pleased with this "large invasion" of geologists.

The first big project of the Humphreys Corporation on the Gulf Coast was Barbers Hill, where Fohs directed the use of torsion balance and later the McCollum well refraction method for locating rim production. In this work he was assisted by Frank W. DeWolf and Sidney Johnson. Their discovery of the overhang and the reserves beneath it established Barbers Hill as one of the major producing domes of the Gulf Coast.

F. Julius Fohs and Alexander Deussen have the distinction of being the only charter members of the Association who are now members of the Society. Like Deussen, Fohs—who at sixteen was mapping faults in Kentucky—started his geologic career with the U.S.G.S. He was among the first to recognize the importance of faulting in Mid-Continent and Rocky Mountain oil fields (in the Wyoming fields in 1914). The Mexia fault zone development starting in 1919 was an important contribution to the development of oil fields in Texas. Fohs is credited with the discovery of the Mexia oil field, which someone said was "the approach to Powell." Upon his recommendation, Col. E. A. Humphrey's Companies, with which he was associated since 1914, drilled the discovery well. Their second well, a 3,000-barrel gusher, started the boom in the summer of 1921. Soon exploration was underway which resulted in the discovery of Currie in 1921, Richland in 1922, Powell in 1923, and Wortham in 1924. Fohs' forte is drilling deep holes, and in 1937 he opened De Large field, Louisiana, with the deepest producing well in the world. His main avocation is the study of Palestine and other Middle Eastern States, their geology, geography, resources, and bases for their future developments.

Donald Barton was elected president in October 1926. About this time West Columbia was the center of activity on the Gulf Coast. D. P. Carlton, who had made a peg model of West Columbia, discussed West Columbia at a night meeting on November 9, 1926, at the University Club and made the talk more impressive by showing the peg model of the subsurface structure. In September 1927 about fourteen couples enjoyed a dinner dance on the Rice Roof.

F. W. DeWolf (1927-28) remembers the dances and good times the Society had during his tenure as president, especially the beach party at Galveston and the swimming party at the Country Club. The attendance at the luncheons was very poor. Interest in the Society was at a low ebb. To recreate enthusiasm in the Society a dinner was held on the evening of April 6, 1928 at the Rice Hotel. Again in May a dinner was given in honor of Donald C. Barton and W. Armstrong Price.

Paul Weaver (1928-29) was elected president of the Society while in Germany. He did not return until after Christmas of 1928, and Marcus A. Hanna as secretary carried on during his absence. There were as usual the two annual dances. In June, near the end of his regime, Mr. Weaver was married, and in July a dinner at San Jacinto Inn was given in honor of the bride and groom.

In October 1929 George Sawtelle was elected president and John Weinzierl, secretary-treasurer. Shortly after taking office these two held a meeting to discuss the program for the year. They decided the Society needed more social activity. So within two weeks the geologists were entertained with a dance at Killkare—the beautiful country home of Mr. John H. Kirby. It was regrettable that Mr. Kirby could not attend in person, but his daughter and son-in-law—Mr. and Mrs.

J. F. B. Rawcliffe—were host and hostess. It was a cold, rainy evening but the atmosphere in that gracious home was warm and cordial; the hospitality, strictly southern with plenty to eat and drink. At three o'clock in the morning everyone was still having a wonderful time.

And the technical side of the year's program was not to be neglected. Efforts were made to have planned programs at the luncheons which were now held every Tuesday at the University Club. This was the period in the history of the Society when geophysics was playing such an important part. The talks were mostly on geophysics, and various types of geophysical instruments were demonstrated to the group.

J. Brian Eby, who succeeded George Sawtelle, remembers several high spots of his regime. One was the barbecue luncheon in January at Westmoreland Farm Inn. Grady Kirby had gone on a successful deer hunt, and the Society was the recipient of a fair portion of venison. There were twenty-three geologists and their wives who enjoyed barbecued venison in spite of very bad weather. Also there was the annual dance at Westmoreland Farm Inn during the latter part of January, with Ralph Britt's Victor Recording Orchestra. A moonlight beach party was held on Freeport West Beach on Saturday night, July 25, 1931. Grady Kirby, now famous as a barbecue chef, along with John Weinzierl, prepared the barbecue and coffee, while O. C. Lester made all other arrangements for this very enjoyable outing.

The geologists decided to try their skill at deep-sea fishing. A committee of three, Grady Kirby, John Miller and C. A. Jaqua, chartered the "Kingfisher," a 137-foot seaworthy boat, for Thursday, August 27, 1931. Fifty people—the capacity number of passengers—took the trip out into the Gulf. Over a thousand pounds of fish were caught and nearly everyone had a good time, although some were too indisposed to care about a good time.

One hot night in September through the hospitality of Mr. R. High, superintendent of the Shell Refinery, a large number of the members enjoyed the outdoor swimming pool at Deer Park.

In the Spring of 1932 during Albert Wolf's administration, F. B. Plummer of the University of Texas planned to bring the graduating class in geology down to Houston to make tours of the various geologic departments. On April 8 the first of such tours was made, and in the evening a joint dinner with the Society was held at the Lamar Hotel. Several papers pertaining to the Gulf Coast were presented by members of the Society.

The completion of No. 1 South Texas Development Company at Conroe by George W. Strake on December 13, 1931, added another major field to the Gulf Coast. This discovery started a new trend of exploration and had a far reaching affect on the future activity of the Gulf Coast area. Many geologists and oil operators flocked into Houston from various parts of Texas, Oklahoma and even California. This influx of geologists had a stimulating effect on the Society. New ideas injected into their thinking jarred the Houston geologists out of their comfortable ruts. The West Texas and Mid-Continent men started new principles of drilling and applied methods they had been using in their old territory. The search was on for the non-piercement type of dome. New geophysical methods were initiated about this time, particularly reflection shooting.

In 1932 the geologists started a rumor that soon micro-paleontologists would no longer be needed, for a new method of correlating wells was being introduced on the Gulf Coast—electrical logging. It was thought that an infallible means of correlation had been discovered and that micro-paleontology would soon drop out

ROCKHOUNDS OF HOUSTON

of the picture. Fourteen years have passed, however, and micro-paleontologists still continue to be added to the company geological staffs, in spite of almost universal use of electric logs.

Shortly after John Vetter took office as president in October 1932, the executive committee of the Society thought it would be a nice gesture to have an affair welcoming the new geologists to Houston and to the Society. So a "Welcome to Newcomers" luncheon was given at the Texas State. John Suman was the speaker and, as you may know, he made the new geologists feel they really were welcome. R. B. Whitehead, chief geologist of the Atlantic and a new member of the Society, made the wise-crack—"It is about time now the Houston geologists open up and let loose some of their secret dope to the newcomers."

OUR SECOND CONVENTION

An outstanding event of John Vetter's regime was our second A.A.P.G. Convention, held March 23-25, 1933. The country was then experiencing the blackest days of the depression; all remember the bank holiday when checks were difficult to cash and, worse, geologists were losing their jobs. After much deliberation the executive committee of the Association decided to carry out the original plans and hold the convention in spite of difficulties. Many geologists were without jobs and felt that now was not the time to spend money for railroad fares. The last minute they decided to leave their wives at home and come alone. Cars came rolling into Houston with four or five geologists in each. As a pleasant surprise, instead of a reservation of 150 as reported by the hotels the night before the convention, the total attendance was 1,021, which included two honorary members, 427 members, 77 associates, 245 non-members, and 270 non-member ladies.

There were three days full of activity. On Thursday, March 23, after an address of welcome by Mayor Walter E. Montieth, F. H. Lahee gave his presidential address—"Petroleum Geology." In addition to papers of general interest, other groups of papers were: the symposium on Gulf Coast; Texas outside the Gulf Coast; Northeastern New Mexico; areas outside Texas, Louisiana and Mexico; and of course papers on paleontology and geophysics.

This was the most economical of the Society's three conventions. As Mr. Hull reported—"In 1933 we got the most for the least money, but in 1941 we got the most for the most money." A tea for the visiting ladies was given at Cohen House, Rice Institute, on Thursday afternoon. The annual banquet—which had been discontinued for several years—was again given. The Main Ballroom, used for the banquet hall, was not large enough to seat the 700 people who were in the mood for delightful entertainment. Loud-speakers were installed so that the overflow out in the corridor and in the Green Parlor could hear Walter Jenkins—then foreman of Joe D. Hughes Ranch—as a "Vaquero Minstrel" portray ranch life in his colorful songs. "Dr. F. Stormingham Carothers, B.S., Ph.D., LL.D., BVD., IOU., of Goose Creek, Texas, announced as the world's authority on subsidence, gave loquacious, though refreshingly frank attention to the weaknesses of Association officials; past, present and future." The dance following the banquet lasted until the wee hours of the morning.

The following afternoon—Saturday—55 geologists went by bus to inspect the Conroe field, and on Sunday, 25 made the trip to Humble's Sugarland field, to Texas Gulf Sulphur Company's New Gulf sulphur mine, and to Boling oil field.

Mr. Deussen was general chairman of the convention. The following members assisted him in putting over a most successful meeting that will long be remembered.

HOUSTON GEOLOGICAL SOCIETY

John M. Vetter, president; Sidney A. Judson, vice-president; John C. Miller, secretary-treasurer.

HOUSTON COMMITTEES

General—Alexander Deussen, chairman; L. P. Garrett, Fred C. Sealey, W. E. Pratt, John M. Vetter.

Technical—D. C. Barton, chairman; L. T. Barrow, George Bevier, Homer

ROCKHOUNDS OF HOUSTON

A. Noble, R. B. Paxton, H. W. Rose, F. W. Rolshausen, L. A. Scholl, Paul Weaver, L. H. Williams.

Finance—Ben C. Belt, chairman; D. M. Cashin, Phil F. Martyn, J. C. Miller, A. T. Schwennesen.

Reception—George Sawtelle, chairman; A. C. Ellisor, M. C. Israelsky, S. A. Judson, J. E. LaRue, John C. Myers, Russell F. Ryan.

Entertainment—J. R. Suman, chairman; Frank C. Adams, M. M. Kornfeld, Paul B. Leavenworth, Elton Rhine, E. P. Tatum, John F. Weinzierl, Karl E. Young.

Registration—J. B. Eby, chairman; L. G. Christie, Donald B. Davis, J. D. Hedley, W. F. Henniger, D. E. Mathes, B. G. Van Roeder, Cornelius Schnurr, J. N. Troxell.

Exhibits—Paul B. Hunter, chairman; J. B. Best, E. V. Hanson, Victor E. Lieb, H. E. Minor.

Publicity—M. A. Hanna, chairman; Jack Logan, E. E. Rosaire, Neil Williams.

Trips—L. P. Teas, chairman; W. F. Bowman, W. B. McCarter, M. H. Steig, C. H. Ritz, A. G. Wolf.

Golf—John S. Ivy, chairman; Dave P. Carlton, J. C. Cruze, P. S. Justice, C. A. Russell.

Ladies Entertainment—Mrs. D. C. Barton, chairman; Mrs. L. T. Barrow, Mrs. L. P. Garrett, Mrs. J. C. Miller, Mrs. W. E. Pratt, Mrs. J. R. Suman, Miss Elizabeth Stiles.

OUR PROJECTS

The Society's First Project—Library Fund

The first project of the Society was the movement to establish a geological reference library. Back in 1925 on December 4, Wallace E. Pratt made a motion that the Society study the possibility of establishing at Rice Institute or the Public Library a geological reference library. A committee consisting of R. H. Goodrich, Sidney A. Judson and Elisabeth Stiles was appointed to study this project. At the meeting February 5, 1926, after the chairman made his report, Mr. Pratt made a motion that the Houston Geological Society favor the establishment of a Geological Reference Library in connection with the Houston Public Library . . . and agree to give \$400 cash in 1926 and a yearly sum of \$100 or more for five years beginning 1927 to purchase books and publications on geology. The \$400 was donated to the Library but there is no record of the other \$500 having been paid. With this \$400 ten books and subscriptions to some nine periodicals were purchased.

In 1927 during Frank W. DeWolf's regime, R. H. Goodrich, John R. Suman and John M. Vetter were responsible for obtaining the generous donation by Mrs. Dumble of E. T. Dumble's valuable collection of geologic books to the Houston Public Library.

When Dr. DeWolf left Houston to reside in Illinois, he gave to the Library his excellent collection of books and reports on the geology of Texas, especially those published by the Texas Geological Survey and Bureau of Economic Geology.

Up to 1929 nothing further had been done about the geological reference library. Geological books were in several alcoves scattered from the first to the third floor of the Library. Therefore in October 1929 when George Sawtelle became president, he proposed to the Society "the raising of a fund by contributions from the various oil companies and oil operators in Houston to obtain a competent technical librarian whose duty it will be to take care of all literature pertaining to geology, geophysics, paleontology, petroleum technology and refining." One-half of the second floor of the northwest wing of the Public Library was to be devoted to this Petroleum Library. After one year the Public Library was to defray the expenses of the petroleum librarian.

Mr. Sawtelle was in charge of solicitations for this Petroleum Technology Fund and from 17 independent operators, oil companies and related industries secured \$1,275. He was \$2,500 short of his goal due to the depression which had hit the country.

W. Armstrong Price, chairman of the Library Committee, was in charge of the funds which were finally given to the Library May 26, 1931. Miss Julia Ideson was appointed trustee of this fund which was invested. The small dividend is now only \$27.50 and helps pay the subscriptions to periodicals started in 1926. Nothing further has been done by the Society about this Petroleum Technology Fund. The original plans are still to be fulfilled.

In March 1938 the Society donated \$68 to the Library for the purchase of the four volumes of "The Science of Petroleum," edited by Dr. A. E. Dunstan. Later in 1941 after Doctor Barton's death, his wife and daughter generously donated his voluminous geologic library to the Public Library.

ROCKHOUNDS OF HOUSTON

On the evening of July 18, 1942, a special night meeting, known as the Donald C. Barton Memorial Meeting, was held at the Public Library in the room which now houses the Barton and Dumble libraries. Mrs. Barton was the guest of honor; Paul Weaver presided. Miss Julia Ideson of the Houston Public Library talked on the "Barton and Dumble Geological Libraries"; Dr. F. B. Plummer, on the "Origin of Oil Pools"; and W. Armstrong Price, on the subject of the "Importance of Physiography in Military Maneuvers."

FIELD TRIPS

The Houston Society has sponsored several field trips in addition to those following the conventions. In the spring of 1921, before the Society was organized, John Suman conducted the first field trip ever held by Houston geologists. A section was studied across the Tertiary beds with particular attention to the Catahoula, Jackson and Claiborne formations. At the end of the day there was a watermelon feast on the banks of the Brazos River. Those on the trip were John Suman, Esther Richards and Wayne Bowman of the Rio Bravo, Raymond Baker of The Texas Company, A. H. Eickleberger of the Vacuum, A. L. Ballard of the Gulf, H. J. McLellan and Alva Ellisor of the Humble.

In the fall of 1930 a series of field days were planned, but we have record of only two having materialized. The following reproduction of a newspaper clipping recalls many details of the first of these field trips, which was held on Saturday, November 1:

TWO OIL FIELDS ARE OBSERVED BY GEOLOGISTS

The first of a series of field days was held Saturday by the Houston Geological society by visits to the Raccoon Bend oil field of the Humble Oil and Refining company in Austin county and the Clay Creek oil field of the Sun Oil company in Washington county.

About 50 members of the society in 15 cars left Houston at 8 a. m. for the old fields. They were headed by Victor E. Lieb.

Arriving at the Raccoon Bend field, the Houston party was met by L. P. Teas, who showed the party over the field—a model field in construction and appointments.

Core Exhibits Explained.

After a tour of the field, Mr. Teas assembled the party in the field laboratory, where cores from the various wells were exhibited and explained. Mr. Teas gave a comprehensive and technical talk on the various formations of the underlying strata of the field, which is an anti-cline formation, differing from the usual coastal field of salt dome formation.

At the Clay Creek field they were met by W. B. Ferguson, geologist, and taken over the field and shown the outcroppings and specimens of cores from the various wells.

On the completion of the tour Mr. Ferguson also gave a technical talk

on the field, which is a salt dome. He explained the area of the dome, its formation and contour and the various strata composing it.

This field, he said, is remarkable in that production was obtained from the Wilcox-Mount Selman formation, the first field in this part of the state from such formations.

Tap Three Strata.

He also called attention to three wells, approximately 300 yards apart, producing from three different strata. Here, as at Raccoon Bend, the mechanical construction and appointments of the field were modern, being entirely different from the usual oil field.

At Brenham they were guests of the Brenham Gun and Rod club at the clubhouse, for one of Washington county's famous barbecue dinners, through the courtesy of W. R. Jahnke, president; Brenham chamber of commerce, O. E. Baungert, A. A. Hacker, P. J. Lemm, T. A. Lowe and F. L. Amsler.

Included in the Houston party were the following geologists: Victor E. Lieb and Mrs. Lieb, J. Bryan Eby, president, Houston Geological society; George Bevier, O. F. Sundt, B. G. Von Roeder, F. E. Jackson, W. B. Ferguson, J. B. Boyd and Mrs. Boyd, E. V. Hanson, H. C. Warren, W. G. Ginther and Mrs. Ginther, H. S. Kemp, D. C. Barton, D'Arcy Cashin and Mrs. Cashin, John Best, Mrs. Best, F. W. Rolschauser and Mrs. Rolschauser, C. L. Baker and Mrs. Baker, Grady Kirby and Mrs. Kirby, O. S. Lester, A. G. Wolf, Harold C. Warren, Karl Young and Miss Alva S. Ellison.

ROCKHOUNDS OF HOUSTON

The second trip of the series took place three weeks later when about thirty geologists visited Boling Oil Field and the Texas Gulf Sulphur Company's plant at New Gulf, Texas. Guides conducted the party through the plant, the sulphur field, and the vats. At the end of the day there were sandwiches and coffee "al fresco" in New Gulf.

In 1934 an interesting opportunity was offered the Society to explore the shaft of Hockley salt mine and to secure valuable information on the cap rock section and the cap rock-salt contact. L. P. Teas conducted this trip.

During Perry Olcott's regime, in 1938, the first carefully planned field trip took place. A committee consisting of R. L. Beckelhymer, chairman; H. B. Stenzel, Joe Hornberger, Phil Martyn, C. H. Ritz, and H. W. Johnson, Jr., charted the trip. A section was made across the Jackson and Claiborne formations of East Texas and Louisiana. It was a two-day affair with headquarters for the night at the Nakatosh Hotel, Natchitoches, Louisiana. A. M. Lloyd and R. T. Hazzard conducted the trip through Louisiana. A road log was prepared by the committee, a graphic section of Creole Bluff showing the contact of the Jackson and Yegua formations was drawn by H. B. Stenzel, and a north-south profile from Zwolle Field to Pickering, Louisiana, was drawn by A. M. Lloyd, C. I. Alexander and R. T. Hazzard. It proved to be a very informative and well attended trip.

STUDY GROUPS

To paraphrase, along with other Houston Society's "brags," the idea of local study groups was initiated in Houston. The geologists had become quite apathetic—so few attended the meetings. Wayne Bowman, on taking office as president in 1934, decided a well prepared paper at each luncheon would stimulate interest. In addition to the luncheon programs, a series of night meetings were planned. Another project was the brain child of A. I. Levorson, chief geologist of the Tide Water Associated Oil Company, who had arrived from Tulsa early in the year. Bowman said that Levorson, a man full of ideas, suggested as another stimulus a study group be organized to investigate current literature pertinent to the geology of the salt dome country.

A group of about twenty geologists began meeting in the offices of the Houston Oil Company once or twice a month. Migration of oil, origin of cap rock and age of salt were the topics selected for study. At each meeting, some one person selected as leader would review a book or paper. This was followed by a discussion—sometimes quite heated. November 22 was the date of the first meeting; the subject was migration of oil. Our records show that these meetings continued until at least June 10, 1937.

The Sidney Powers Memorial Volume—a symposium on "Problems of Petroleum Geology"—had just been published, and from its pages were some of the papers reviewed and discussed. On the subject of the origin and migration of oil, three papers are remembered as being studied—one by Frank R. Clark on the "Origin and Accumulation of Oil," one by F. H. Lahee on "A Study of the Evidences for Lateral and Vertical Migration of Oil," and a third, "Natural History of the Gulf Coast Crude Oil" by Donald C. Barton. "The Age of Border Salt Deposits" by Levi S. Brown was another the group studied. This paper caused a great deal of discussion and argument as there were a number of dissenting views. Another paper Bowman remembers being reviewed was by Marcus I. Goldman—"Origin of the Anhydrite Cap Rock of American Salt Domes." Donald C. Barton discussed this paper before the study group. Barton said he was "still agnostic in regard to the origin of the cap rock. Even after many a friendly argument with Goldman and after careful study of this paper, the 'sedimentary' theory is not satisfactory to the reviewer, but he is still less satisfied with the 'residual' theory."

Wayne Bowman remarked that Marcus A. Hanna was the first to accept the residual theory for the origin of the American anhydrite cap rock. "The Geology of the Gulf Coast Salt Domes"—perhaps Hanna's best contribution to geologic science—was first read before the Association in 1931 but not published until 1934. In this paper, one of the "texts" for the study group, Hanna goes further into his theory of anhydrite cap rock being formed by the accumulation of insoluble residuals from the solution of salt. He first expressed this opinion in print in 1930. Hanna said he and Barton never did come to an agreement on the origin of anhydrite cap rock. Hanna, in discussing these early group studies on the origin of salt domes and salt dome structure, said that one of the most thought-provocative papers at this time was the one by C. H. Ritz published in 1936,—"*Geomorphology of Gulf Coast Salt Structures and Its Economic Applications.*" In this paper Ritz stated that the "importance of rim synclines around Gulf Coast salt domes, as structures affecting the migration and accumulation of oil and gas, has not been generally recognized." This was a highly controversial

ROCKHOUNDS OF HOUSTON

paper at the time but has been proved a real contribution; and in the opinion of Hanna it is one of the classics on salt domes.

In 1935 Schuchert published the first volume of his *Historical Geology of North America*—"Historical Geology of the Antillean-Caribbean Region." Paul Weaver recalls how he "boned up" on this book as it came off the press to give a review before the study group. His knowledge of the geology of Mexico and South America had much weight in the discussion that followed.

A complete list of papers given is not available as no record was kept of these meetings, and the memories of the geologists are hazy.

In 1938 when Perry Olcott became president, the study group idea was revived and a well planned schedule was set up. Cards were sent to all the members to suggest subjects for study. In November sixteen groups were organized. A leader was chosen for each group which had its own time of meeting and place. Thus instead of one single group of a few members, a good cross-section of the Society became interested and met regularly. The leaders and the subjects studied were as follows: John Vetter, Permeability; Leslie Bowling, Porosity; Russell Weingartner, Conate Water; J. L. Mathieu, Electrical Well Surveying; Paul Weaver, Geophysics—Interpretation—Magnetic; M. T. Halbouty, Principles of Sedimentation; Ionel I. Gardescu, Lithologic Study of Frio Section; Shirley L. Mason, Datum Planes; Wayne Bowman, Isopach Maps; Olin G. Bell, Multiple Sand Completions; Phil Martyn, The So-Called Oligocene Wedge; C. H. Ritz, Regional Structural Features; Dr. R. J. Gonzalez, Organization of Business in the Petroleum Industry; C. H. Sample, Paleontology; John C. Miller, Classification of Tertiary Formations; Merle C. Israelsky, Frio Problem. The Association became so interested in this project the editor suggested publishing six of these reports. This set included, "Geophysical Interpretation," "Datum Planes for Contouring the Gulf Coast Region," "Notes on the Frio," "Report of Sedimentation Group," "Economic and Statistical Aspects of the Petroleum Industry," "Electrical Well Logging." The Society published "Multiple-Oil-Zone Completions" and "Interpretation of Geophysics."

The enthusiasm of the participating groups carried over into the next year, but only eight groups were organized. The following papers were published by the Society (1939-40): "The Problem of Well Spacing," "Some Legal Aspects of the Texas Oil and Gas Industry," "Study of the Wilcox Group in Texas, Mississippi, Louisiana, and Alabama," and "Special Gulf Coast Evaluation Engineering Problems."

During the war the study groups were discontinued. In the fall of 1945, when Olin G. Bell assumed the responsibility of guiding the Society as president, study groups were again organized. In response to a questionnaire sent each member, three subjects were selected: "Well Logging on the Gulf Coast" with Perry Olcott as chairman of Group I; "Stratigraphic and Structural Distribution of Coastal Reservoirs," with A. L. Selig as chairman of Group II; "Evaluation of Oil and Gas Properties," with John Todd as chairman of Group III. These groups met each week until the latter part of May.

STAG PARTIES

When discussing his tenure of office (1936-37), Phil Martyn with a twinkle in his eye said, "Miss Ellisor, don't forget to mention the stag parties in the History." The first of three stag parties was a dinner given February 11, 1937, in the Grill Room of the Houston Club honoring the past officers of the Society. Olin G. Bell was chairman of the steering committee. "Some" party was planned. John Suman was to be the speaker of the evening, and a good time was assured for all. Cards were sent to *all* members of the Society urging them to attend.

Early in the afternoon, the day of the dinner, Phil Martyn, looking over the list of past officers, discovered there were two feminine past vice-presidents—Alva Ellisor in 1924-25 and 1930-31, and Elisabeth Stiles in 1925-27. Concerned for fear they would come, he immediately called Olin Bell for advice. Olin Bell told him that he, as president, would have to handle that situation. Quite embarrassed, Phil called these two ladies—who, of course, had no intention of attending the party—and said he was very sorry they had been overlooked as past officers, but he felt sure they would not care for the party. A peace offering—a lovely basket of flowers—was sent as a surprise to each of them. With the flowers was a card inscribed—"While the stag members of the Houston Geological Society are enjoying their stag dinner, we hope you will enjoy this expression of the appreciation of the Society for the non-stag members."—Signed, Phil Martyn. Phil has never forgotten his dilemma—and now, never will.

The second stag party was a dinner given at the River Oaks Country Club February 23, 1940, during Wallace Thompson's presidency. George Buchanan, Sam Dunham, E. I. Thompson, and Bill Clark constituted the committee responsible for the success of this party.

For entertainment Frank Carothers gave one of his long orations. There was a report—"Lockjaw's Oil Retort"—a parody on C. D. Lockwood's Oil Report. Just as the celebrities were to be introduced the police came barging in on the trail of Wayne Bowman for some misdemeanor, but he was finally rescued by his friends. "They" say Wayne was quite embarrassed. "They" also say that George Sawtelle was very proud of his "fur-lined trophy." Wallace Thompson reports this party really "went over big." Again flowers were sent to the non-stag members of the Society. Doris Malkin, then a member, took a picture of her basket of flowers for her memory book.

In 1944, W. B. Moore, secretary of the Society, mailed the following notice to all members: "Stag party—Free beer and lunch, Rice Hotel, January 28, 1944, Friday night, 7 p. m. Make the proper home arrangements."

In discussing this third stag party, a member who does not want to be quoted said: "It was a flop. All were disappointed because the beer gave out, all were disappointed because the sandwiches gave out, all were disappointed because of the home-made entertainment, and all were disappointed because they had to go home before nine o'clock. Some disappointments!"

Thus ends the tale of the stag parties.

STUDENT AWARDS

The West Texas Geological Society, at a meeting in July 1939, considered and approved by resolution a Student Award Plan presented by W. C. Fritz and Berte R. Haigh. Then South Texas Geological Society adopted such a plan. On March 4, 1940, the Houston Geological Society passed a resolution authorizing its president, Wallace C. Thompson, to appoint a committee to consider such an award. It was decided to sponsor annually two outstanding students from A. & M. College, one from the department of Petroleum Engineering and a second from the department of Geology. They were to be seniors or graduate students.

The first committee consisted of George S. Buchanan, chairman, George Sawtelle and E. O. Buck. This committee submitted to both departments a list of subjects from which the senior and graduate students selected a topic for a paper. Six candidates were chosen by the two departments, based on scholarship, personality, originality, adaptability, and the tenor of the papers written. The Society was then host to these six candidates and to the highest twenty-five per cent of the senior and graduate students at a special night meeting in Houston. Of the six candidates, one from each school was the recipient of the student award, which consisted of a two-year paid-up associate membership in the American Association of Petroleum Geologists.

The Society has made only three awards. In 1940 the recipients were: Charles Vaughan Roberts, geology, and V. N. Burgess, petroleum engineering.

In 1941 the second award was made. Donald M. Davis, F. W. Freeborn, Jr. and J. D. Wheeler were on the Awards Committee. The recipients were: John J. Collier, Jr., geology, and Frank M. Pool, petroleum engineering.

In 1942 a committee was appointed with Fritz Mueller as chairman, but no selection was made due to the war.

It was not until 1946 that the third award was made. R. C. Bowles was chairman of the Awards Committee, assisted by Wallace C. Thompson and Donald M. Davis. The recipients were Paul Graham, geologist, and James W. Amyx, petroleum engineer.

REVIEW CONFERENCE

Many of the members who had been away from Houston serving their country in one way or another had by spring 1946 returned to their chosen field of activity—geology. Olin G. Bell, as president of the Society and as one of those who served in World War II, thought a review of the developments in the various fields of activity for the past five years would be most helpful for all.

A conference was therefore held Friday, April 26, at the San Jacinto Hotel. Phil Martyn and his committee arranged a well planned program: Olin G. Bell gave the address of welcome and Alexander Deussen presented a paper, "Forty Years of Gulf Coast Geology." The following reviews of development were given: George S. Buchanan, Upper Gulf Coast of Texas; Bruce Scrafford, South Texas Area; Wm. H. Spice, Jr., San Antonio Area; E. J. Hamner, Well Logging; C. D. Lockwood, Production Statistics; Paul Weaver, Geophysics; C. I. Alexander, East Texas; A. M. Lloyd, North and South Arkansas; R. L. Denham, South Louisiana; Marcus A. Hanna, Stratigraphy; R. M. Harris, Mississippi, Alabama and Florida; and J. H. P. Campbell, Core Analysis. The conference closed with an address by Dr. W. H. Twenhofel, Emeritus Professor of Geology, University of Wisconsin, on "The Geology of the Region of the Gulf of St. Lawrence." That night, after a strenuous day, the geologists relaxed at The Plantation where they dined and danced.

Early the next morning a group of ninety members and guests went by bus to Freeport where they were conducted through four plant units of the Dow Industries. At noon all were guests of the Dow Company at its cafeteria. On the way back the group stopped at New Gulf and inspected the mining operations of the Texas Gulf Sulphur Company. The officers of the Company served refreshments to the thirsty crowd who had had a most enjoyable trip.

This conference was a very happy thought. The papers were excellent and certainly the meeting was well attended. The ballroom at the San Jacinto was crowded with the 350 members who registered for the meeting.

OUR THIRD CONVENTION

It was during George S. Buchanan's administration that the Houston Society acted as host to the Association for the third time. The twenty-second annual meeting was held in Houston March 31, April 1, 2, 3, 4, and 5. A longer session than usual had become necessary to present the technical program and to carry on necessary discussions of research problems as well as business affairs.

Geologists had come a long way since that first convention in Houston in 1924. Here, in 1941, gathered into one, were the meetings of the Society of Economic Paleontologists and Mineralogists, the Society of Exploration Geophysicists and the American Association of Petroleum Geologists. This convention "pictured the largeness of geology in the petroleum industry; it illustrated the variety and completeness of the activity of the petroleum geologist in his comprehensive character as earth scientist in the search for oil and gas: paleontologist, stratigrapher, geophysicist, geochemist, map-maker, production engineer; indeed, as explorer, producer, administrator, executive."

As one tried to mill through the crowd on the Mezzanine of the Rice Hotel one constantly heard such exclamations as—"What a jam!" "Terrific crowd!" "What a mob!" and others not printable. Yes, the registration was the largest in the history of the Association: 2,801 persons; 1,043 full members, 166 associate members, 827 non-member men, and 765 non-member women.

When the geologists registered without paying a fee, they were given four booklets: the program with 68 pages "chuck full" of information—the most artistic program the Association has ever had; a pamphlet entitled "An Introduction to Gulf Coast Oil Fields," showing cross-sections and structure maps, guide fossils of the Texas Gulf Coast, a diagrammatic dip section, and seven types of oil-field structure in the Houston district; a copy of Bull-et-al, a 28-page miniature take-off of the familiar cream-colored Bulletin including a "Rogues' Gallery" of the Houston Society; and a guide for field trips.

Mr. Buchanan said this was the convention to end all expensive conventions, so the committee decided to have one final big splurge. And they did. As Mr. Hull commented—"We got the most for the most money." For the ladies there was a style show and the Rice roof garden was jammed. Music was by George Olsen's Orchestra, a name band, and styles by Sakowitz. On Thursday evening a dance was given with music and a very lavish floor-show by George Olsen. At least those who were fortunate enough to see it said so—for, as usual at this convention, the place was jammed. Another highlight of the evening were the free drinks of scotch, bourbon and rum served from the bar in the ball room. More than seventeen hundred people attended the dance and stayed for breakfast after the floor show.

In addition to the field trips to Hockley Salt Mine, Texas Gulf Sulphur Mine and Galveston Bay to see the drilling out in the water, and to various oil fields—Pierce Junction, Hastings, Hoskins Mound, West Columbia, and Damon Mound—there were tours through various company laboratories.

Other entertainment included the college reunion luncheons, airplane trips over the city at \$6.50 per hour, the annual golf tournament for the Bostick cup held at the Brae-Burn Country Club, and "milling around" looking at exhibits. The latter were outstanding, both commercial and scientific. There were thirty commercial exhibits—a regular oil field convention show which filled the Sam Houston room and the foyers. Among the scientific displays on the second floor

ROCKHOUNDS OF HOUSTON

were: "The Geologist Watches a Drilling Well in the Gulf Coast," a joint project by three Societies, Houston, South Louisiana, and South Texas; "Catalog of Foraminifera" by the American Museum of Natural History; the Appalachian Society display, "Depositional and Structural Cross-Sections of the Appalachian area;" the Michigan Society display, a "Relief Model of Six Lakes Gas Field, Montcalm County, Michigan;" and the Oklahoma City Geological Society exhibit, "Murals of Vertebrate Fossils." Some ten more Societies had cross-sections, maps, graphs, publications, and photographs.

It was Perry Olcott's idea that speeches by outstanding men in the petroleum industry should be a special feature on the technical side. So on Thursday morning after the three presidential addresses, Robert E. Wilson, president of the Pan American Petroleum and Transport Company, spoke on "Petroleum and the War;" J. Edgar Pew, vice-president of the Sun Oil Company, "The Fifth Dimension in the Oil Industry;" N. C. McGowan, president of the United Gas Pipe Line Company and Union Producing Company, "Natural Gas with Regard to Its Place in National Defense;" and Sumner T. Pike, Commissioner, Securities Exchange Commission, Washington, D. C., "The Petroleum Geologist and the S. E. C."

One should not omit "giving a hand" to the press for its generosity with publicity during this convention. In addition to daily features and stories in all three newspapers, the Houston Chronicle on Tuesday, April 1, had a special Convention edition with a section of twelve pages devoted entirely to the meeting: with pictures of the officers of the American Association of Petroleum Geologists, the Society of Economic Paleontologists and Mineralogists, the Society of Exploration Geophysicists, the Houston Society, and of the chairmen of the various committees; write-ups, interviews and feature stories of some of the prominent geologists; also a history of the Association and of the Houston Society.

The success of the convention was far greater than Alexander Deussen, general chairman, and his various committeemen had anticipated. Those who served with Mr. Deussen in making this one of the outstanding conventions are listed as follows:

CONVENTION COMMITTEES

ALEXANDER DEUSSEN, *General Chairman*

<i>Chairmen:</i>	W. B. Heroy, L. P. Garrett, John M. Vetter, R. C.
Alexander Deussen	Bowles, Roy L. Beckelhymer, George S. Buchanan,
<i>Steering Committee</i>	Marcus A. Hanna, Wallace C. Thompson, Leslie Bowling
Olin G. Bell	J. A. Wheeler, W. A. Gorman, F. G. Evans
<i>Hotel and Registration</i>	
Paul Weaver	Lon D. Cartwright, Jr., J. Brian Eby, F. W. Rols-
<i>Exhibits</i>	hausen, W. F. Calohan, W. E. Greenman, J. M. Bugbee, K. H. Clough

ROCKHOUNDS OF HOUSTON

Perry Olcott, A.A.P.G. H. B. Peacock, S.E.G. M. A. Hanna, S.E.P.M. <i>Technical Program</i>	<i>Regional Subchairmen:</i> O. L. Brace, All Development Papers Shirley L. Mason, Gulf Coast Area Herschel H. Cooper, South Texas Area Ronald K. DeFord, West Texas Area C. E. Dobbin, Rocky Mountain Area Jos. H. Markley, Jr., South Mid-Continent Area A. H. Bell, Central and Eastern States John G. Bartram, North Mid-Continent Area Earl B. Noble, California
<i>Sub-Committees:</i> W. A. Clark, Jr. <i>Research Laboratory Tours</i>	Stewart Buckley, Hillard W. Carey, William M. Cogen, William L. Horner, C. W. Sanders, A. Knox Tyson, F. M. Kannenstine
Paul B. Leavenworth <i>Technical Equipment</i>	A. W. Bunson, Wallace Wade, Elmer Childress, O. D. Feland, Tom Lewis, Jack Harang, John S. Woods, W. H. Hough
Wayne F. Bowman <i>Invitations</i>	J. E. Elliott, A. L. Selig, Erwin W. Smith, W. L. Gold- ston, Wayne V. Jones, H. E. Minor
Perry Olcott <i>Printing</i>	C. D. Lockwood
J. A. Culbertson <i>Field Trips</i>	M. M. Sheets, James K. Rogers, Jerome S. Smiser, M. H. Steig, A. G. Wolf, Ed. J. Hamner, Wayne F. Bowman, G. J. Smith, O. C. Clifford, John M. Brokaw, Paul Clark
Ben C. Belt <i>Finance</i>	Morgan J. Davis, Roy R. Morse, Dugald Gordon
George Sawtelle <i>Entertainment</i>	Sam E. Dunnam, Jr., T. I. Harkins, E. M. Funkhauser
C. D. Lockwood <i>Publicity and Pamphlet</i>	Phil F. Martyn, Weldon Hill, Everitt Collier, Warren L. Baker, Neil Williams, W. W. Patrick, Rivers Reaves, E. N. Redden
Carleton D. Speed, Jr. <i>Reception</i>	W. A. Reiter, Hugh L. Burchfiel, Frank J. Gardner, Sam Grinsfelder, T. J. Galbraith, E. E. Rosaire, M. C. Israelsky, Alva C. Ellisor, Elizabeth Stiles, Doris S. Malkin, Dorothy A. Jung
K. H. Crandall <i>Transportation</i>	C. L. Lake, J. Boyd Best, George L. Herrington, J. L. Mathieu, E. A. Murchison, W. B. Milton, Jr., John N. Troxell, C. L. Herold
Al Ferrando <i>Golf</i>	W. G. Saville, R. J. St. Germain, R. B. Mitchell, Jack Chambers

Each one recalls some incident, some paper or some exhibit that is a pleasant and lasting memory of this convention, but all unanimously say "What a mob of people were at that convention!"

PLACE AND DATE OF OUR LUNCHEON MEETINGS

There is a bit of history attached to the meeting places of the Society. From the summer of 1923 to the summer of 1928 the meetings were held the first Friday of the month at the University Club which at first was over the present Liggett's Drugstore on Rusk and Main. Soon the University Club moved to its own building on Rusk and Austin.

From August 1928 to October 1929 our meetings were held every Tuesday in a private dining room of the Rice Hotel. For the summer months a table was reserved on the Rice Roof for the Society. As that was before the days of air-conditioning, the Roof was the most desirable place in Houston. All enjoyed that social hour, just getting to know each other better. In October the Society moved back to the University Club and stayed until the following June (1930).

The Spanish Dining Room of the Lamar Hotel was the meeting place from June 1930 to November 1930, then we met at the Club again for a year (November 1930 to July 1931). Still meeting every Tuesday, the Society tried the Lamar Cafeteria from July 1931 to October 1931 trying to fit everyone's purse, but still the attendance was poor. The officers, thinking another day would suit more people, changed the day to Thursday and the place to the dining room of the Lamar Hotel where the luncheons were held from October 1931 to October 1934.

For the next four years (October 1934 through November 1938) the luncheons were held at the Houston Club. As there was no private dining room large enough for the Society, it was difficult having the scheduled programs which by now were attracting a large crowd. So during Perry Olcott's administration the meetings were held at Kelly's Restaurant on Texas in an upstairs private room, which had to be given up in November 1939. Private dining rooms large enough for the group were difficult to find and several places were tried—the Quarterback Club quarters in the Lamar Hotel from November 16, 1939 to January 11, 1940; the bridge lounge of the Lamar for the next month; Kelly's Champion Corral from February 29, 1940 to October 17, 1940. Starting in 1939 the meetings were discontinued through the summer months of July and August.

Still meeting every Thursday except during the summer months, the Society next moved to the mezzanine of the Texas State Hotel. In 1943 it was decided to have only two luncheon meetings each month, on the second and fourth Thursday. The war had made inroads on the membership and it was difficult to find a speaker for each week. In 1945, because of the Hotel's program, the day was changed to Monday, and in October 1946 the place was changed to the Rice Hotel as the attendance had so greatly increased a larger dining room was necessary.

It has been the experience of the Society that two meetings a month is now the most acceptable program. One meeting a month is not sufficient as there is too long a period between meetings and interest and enthusiasm wane. A meeting every week is too often for the geologist to attend regularly, and if he does not attend regularly, he misses some interesting papers. It also has been learned that a luncheon or dinner meeting is better attended than a meeting with just a lecture, and a luncheon with a good speaker is best attended. It is at the luncheons and dinners that the members have the opportunity to get acquainted, discuss new ideas, and enjoy the fellowship of each other. Also the various committee meetings afford an opportunity for the geologists to get acquainted. The lectures by distinguished geologists always attract a large crowd.

MEMBERS OF THE SOCIETY WHO SERVED THE ASSOCIATION

In the formative years of the A. A. P. G., many of its officers came from the membership of the Houston Society. Ten of its past presidents—one-third—have been members of our Society. Several of its members helped to organize the Association.

The first president (1917) of the Association—J. Elmer Thomas—maintained an office in Houston from December 1935 to March 1940. He said he was not an active member of the Houston Society, although he “yielded dues, practically upon demand.” The early members, however, remember the part he played in making a success of the Society’s first convention, particularly that unique and most delightful entertainment of all the conventions.

It was upon the initiative and invitation of J. Elmer Thomas that 27 geologists from Oklahoma met for dinner at the Hotel Tulsa in Tulsa on October 2, 1915 to consider an organization of petroleum geologists. One of the Society’s present members attended that dinner—F. Julius Fohs. Earlier in the year while in Norman, E. DeGolyer, then chief geologist for the Mexican Eagle Oil Company at Tampico, proposed to Charles H. Taylor, at that time head of the department of geology, the organization of a geological society as a University extension project.

At the dinner held on October 2, 1915 it was decided that an association be organized according to the proposal of Charles K. Taylor. Dr. Taylor mailed invitations to all geologists of the Southwest—not only to petroleum geologists—to attend a geological conference January 7-8, 1916 at Norman, Oklahoma. About 60 geologists attended, including Grady Kirby, Wallace E. Pratt, F. Julius Fohs, E. DeGolyer, and Alexander Deussen. Another Society member who attended this meeting was Olin G. Bell. He was then a fledgling geologist in the first semester of his freshman year and working his way through school as a janitor in the geologic and botany departments for the sum of ten dollars a month. As a student he attended this conference.

A number of papers were presented at this Conference, among which was one by J. Elmer Thomas—“Doodlebugs and the Licensing of Geologists.”

The organization of a society was postponed until February 9-10, 1917 at a second meeting of geologists in Tulsa. At this meeting, Thomas was elected president and Deussen vice-president. Those attending became charter members, several of whom later became members of the Houston Society: R. F. Baker, Alan Bruyere, E. DeGolyer, Alexander Deussen, F. Julius Fohs, Sidney Powers, and J. Elmer Thomas. The organization was called the Southwestern Association of Petroleum Geologists. Upon the recommendation of Thomas the name was changed to its present form February 6, 1918 at the meeting in Oklahoma City.

Like Thomas, a few of these ten past presidents of the Association were not very active in the Houston Society. A. I. Levorsen who came to Houston early in 1934 was elected president in 1935 while still in Houston but moved to Tulsa before the end of his term of office. Levorsen, originally from Minnesota, did his early work on the Minnesota Geological Survey in 1915. He served with the 21st U. S. Engineers in World War I. Levorsen had the vision which led to the discovery of the very rich Fitts oil pool, one that many geologists said could not be there. He has done notable work on paleogeography of Oklahoma-Kansas oil fields.

William B. Heroy, elected by his colleagues in 1934 as president of the Asso-

ROCKHOUNDS OF HOUSTON

ciation, became a member of the Houston Society when he came to Houston as president and general manager of Pilgrim Exploration Company. A native of New York City, he graduated in geology from Syracuse University in 1899. Like many of our geologists, his early work was with the United States Geological Survey (1908-1919). With Sinclair Consolidated, he was first an assistant to Dr. Arthur C. Veatch, whom he succeeded as chief geologist of Foreign Exploration conducting studies in Angola, N. W. Africa, Venezuela, Columbia, and elsewhere. During World War II he was consultant to the Board of Economic Warfare, Director of Division of Reserves of P.A.W., and, since 1943, Director of Division of Foreign Production for the United States Government.

H. B. Fuqua, president of the Association in 1937-38, is a newcomer to Houston. He received his B. A. degree in geology from the University of Oklahoma in 1919, after his university career had been interrupted for thirteen months of service in the Army during World War I. In January 1919 he became field geologist for the Empire Gas and Fuel Company. Three months later he went with the Atlantic, but resigned three years later to become an independent geologist. In 1922 he became associated with the Gulf Production Company as geologist at Wichita Falls and in 1929 became chief geologist of the Forth Worth District. In September 1944 he went into the production department for the Houston Division as assistant to the vice-president in charge of operations. Upon his arrival in Houston he became a member of the Houston Geological Society.

To summarize, the ten past presidents of the American Association of Petroleum Geology who are or have been members of the Society are:

J. Elmer Thomas, 1917-18
Alexander Deussen, 1918-19
Wallace E. Pratt, 1920-21
E. L. DeGolyer, 1925-26
Sidney Powers, 1930-31
L. P. Garrett, 1931-32
Wm. B. Heroy, 1934-35
A. I. Levorsen, 1935-36
H. B. Fuqua, 1937-38
Donald C. Barton, 1938-39

Other Houston members serving the American Association of Petroleum Geologists as officers are as follows:

1917-18—Alexander Deussen, vice-president
1924-25—F. W. DeWolf, vice-president
1928-29—David Donoghue, second vice-president
1934-35—George Sawtelle, vice-president
1941-42—John M. Vetter, vice-president
1942-43—Paul Weaver, vice-president
1946-47—Perry Olcott, vice-president
1927-28—David Donoghue, secretary-treasurer
1933-34—W. B. Heroy, secretary-treasurer

ASSOCIATE EDITORS

Wallace E. Pratt 1921-27
Donald C. Barton 1927-35
L. P. Teas 1933-37
Sidney A. Judson 1935-47
Marcus A. Hanna 1937-47

ROCKHOUNDS OF HOUSTON

REGIONAL DIRECTORS

John R. Suman	1922 to May 1924
David Donoghue	May 1924-1927
Frank W. DeWolf	1927-28

DISTRICT REPRESENTATIVES

John M. Vetter	1928-1931
John F. Weinzierl	1931-1933
Paul Weaver	1933-35
John M. Vetter	1935-36
Kenneth Dale Owen	1935-37
J. Brian Eby	1936-38
Orval L. Brace	1937-39
Perry Olcott	1937-39
Wallace E. Thompson	1938-40
J. Boyd Best	1939-41
Lon D. Cartwright, Jr.	1939-41
Roy L. Beckelhymer	1940-42
Carlton D. Speed, Jr.	1941-42
Marcus A. Hanna	1941-43
Phil F. Martyn	1941-43
R. C. Bowles	1942-44
Leslie Bowling	1942-44
S. G. Gray	1943-45
W. B. Moore	1943-45
George S. Buchanan	1944-46
Donald M. Davis	1944-46
A. P. Allison	1945-47
P. B. Leavenworth	1945-47
Ira H. Brinkerhoff	1946-48
Shirley H. Mason	1946-48
P. H. O'Bannon	1946-48

REPRESENTATIVES AT LARGE

Donald C. Barton	1929-31
Alexander Deussen	1929-31

DIVISION REPRESENTATIVE OF GEOPHYSICS

F. M. Kannenstine	1935-37
-----------------------------	---------

DIVISION REPRESENTATIVE OF PALEONTOLOGY AND MINERALOGY

F. W. Rolshausen	1946-47
----------------------------	---------

OFFICERS OF THE SOCIETY OF ECONOMIC PALEONTOLOGISTS AND MINERALOGISTS

Marcus A. Hanna, Secretary-Treasurer	1927-28
Marcus A. Hanna, President	1930-31
Merle C. Israelsky, Vice-President	1934-35
Merle C. Israelsky, President	1936-37
F. W. Rolshausen, Vice-President	1937-38
Alva C. Ellisor, Vice-President	1941-42
Hershal C. Ferguson, Vice-President	1944-45
F. W. Rolshausen, President	1946-47

MEMBERS WHO SERVED AS OFFICERS OF THE SOCIETY OF GEOPHYSICS

<i>Year</i>	<i>President</i>	<i>Vice-President</i>	<i>Secretary-Treasurer</i>
1930-31	Donald C. Barton	E. E. Rosaire	John F. Weinzierl
1931-32	Donald C. Barton	G. H. Westby*	John F. Weinzierl
1932-33	Paul Weaver	G. H. Westby	John F. Weinzierl
1933-34		J. P. Schumacker	John F. Weinzierl
1934-35	E. E. Rosaire	F. Goldstone	
1935-36		L. W. Blau	G. H. Westby
1936-37	L. W. Blau	G. H. Westby	John H. Wilson*
1937-38		F. M. Kannenstine*	M. E. Stiles
1938-39	F. M. Kannenstine	W. T. Born	H. B. Peacock
1939-40		W. T. Born	John H. Crowell
1940-41	W. T. Born	H. B. Peacock	Andrew Gilmour
1941-42	H. B. Peacock	F. Goldstone	W. M. Rust, Jr.
1942-43	F. Goldstone	R. D. Wyckoff	T. I. Harkins
1943-44	R. D. Wyckoff	W. M. Rust, Jr.	Hart Brown
1944-45	W. M. Rust, Jr.	Henry C. Cortes	W. Harlan Taylor
1945-46	Henry C. Cortes		

EDITOR

1931-32	. . . . .	Paul Weaver
1932-34	. . . . .	L. W. Blau
1935-37	. . . . .	F. M. Kannenstine
1937-39	. . . . .	M. M. Slotnick
1939-42	. . . . .	R. D. Wyckoff
1946-47	. . . . .	L. L. Nettleton

BUSINESS MANAGER

1938-45	. . . . .	J. F. Gallie*
1945-46	. . . . .	Elizabeth Stiles

* Not a member of the Houston Geological Society, but is or has been a Houston Geophysicist.

MEMBERS WHO SERVED THE SOCIETY

	<i>President</i>	<i>Vice-President</i>	<i>Secretary-Treasurer</i>
1923-1924	John R. Suman		David Donoghue
1924-1925	John R. Suman	Alva C. Ellisor	David Donoghue and W. D. Blackburn
1925-1926	Dilworth S. Hager	Elisabeth Stiles	John M. Vetter
1926-1927	Donald C. Barton*	Elisabeth Stiles	John M. Vetter
1927-1928	Frank W. DeWolf	Laura Lee Weinzierl*	Marcus A. Hanna
1928-1929	Paul Weaver	John M. Vetter	Marcus A. Hanna
1929-1930	George Sawtelle	J. Brian Eby	John F. Weinzierl
1930-1931	J. Brian Eby	Alva C. Ellisor	John F. Weinzierl
1931-1932	A. G. Wolf	Grady Kirby	John F. Weinzierl
1932-1933	John M. Vetter	Sidney A. Judson	John C. Miller
1933-1934	Marcus A. Hanna	Wayne F. Bowman	John C. Miller
1934-1935	Wayne F. Bowman	John C. Miller	Phil F. Martyn
1935-1936	Merle C. Israelsky	Phil F. Martyn	O. L. Brace
1936-1937	Phil F. Martyn	O. L. Brace	W. C. Thompson

1937-38

<i>President</i>	<i>Vice-President</i>	<i>Secretary</i>	<i>Treasurer</i>
John C. Miller	Perry Olcott	Lon D. Cartwright, Jr.	

ADVISORY COMMITTEE:

C. E. Manion - J. Boyd Best - Homer A. Noble

1938-39

Perry Olcott	R. A. Weingartner	Carleton D. Speed, Jr.	
--------------	-------------------	------------------------	--

ADVISORY COMMITTEE:

Olin G. Bell - Wm. F. Calohan - Hugh T. Richardson

1939-40

W. C. Thompson	C. D. Speed, Jr.	Olin G. Bell	A. P. Allison
----------------	------------------	--------------	---------------

ADVISORY COMMITTEE:

F. W. Rolshausen - R. L. Beckelhymer - R. J. Metcalf

1940-1941

G. S. Buchanan	A. P. Allison	Leslie Bowling	Dugald Gordon
----------------	---------------	----------------	---------------

ADVISORY COMMITTEE:

James W. Kisling, Jr. - A. L. Selig - Evan G. Thompson

* Deceased

ROCKHOUNDS OF HOUSTON

1941-42

<i>President</i>	<i>Vice-President</i>	<i>Secretary</i>	<i>Treasurer</i>
C. D. Speed, Jr.	Donald M. Davis	W. Z. Burkhead	James W. Kisling

ADVISORY COMMITTEE:

Hershal C. Ferguson - Carl B. Richardson - M. H. Steig

1942-43

Donald M. Davis	C. B. Richardson	W. L. Horner and Hillard W. Carey	Wm. F. Calohan
-----------------	------------------	--------------------------------------	----------------

ADVISORY COMMITTEE:

W. B. Milton, Jr. - W. B. Moore - John C. Myers

1943-44

Leslie Bowling	W. B. Milton, Jr.	Wm. B. Moore	Gerald J. Smith
----------------	-------------------	--------------	-----------------

ADVISORY COMMITTEE:

Shapleigh G. Gray - Shirley L. Mason - Joseph Hornberger

1944-45

Wm. B. Milton, Jr.	Wm. B. Moore	Charles H. Sample	Homer A. Noble
--------------------	--------------	-------------------	----------------

ADVISORY COMMITTEE:

Ira A. Brinkerhoff - Charles L. Lake - Martin M. Sheets

Oct. 1945 — June 1946

Olin G. Bell	Shapleigh G. Gray	Harry Kilian	Martin M. Sheets
--------------	-------------------	--------------	------------------

ADVISORY COMMITTEE:

A. F. Childers, Jr. - Harold Geis - L. H. Morris

June 1946 — June 1947

Shapleigh G. Gray	Chas. H. Sample	A. F. Childers, Jr.	W. Z. Burkhead
-------------------	-----------------	---------------------	----------------

ADVISORY COMMITTEE:

R. L. Beckelhymer - E. L. Earl - J. A. Culberson
Olin G. Bell, Ex. Officio.

VETERANS OF WORLD WAR II

E. W. K. Andrau	Army	Hillard Hinson	Army
Denys H. Back		D. S. Holcombe	
Robert M. Bailey	Navy	L. E. Holmberg	Army
E. B. Baldwin*	Navy	John E. Huff, Jr.	Navy
Robert M. Beatty	Navy	M. M. Kornfeld (Travis) . . .	Army
Olin G. Bell	Army	George C. Lee	Army
Merle C. Bowsky	Navy	Don E. Mathes	Army
Wayne Z. Burkhead	Army	Maurice J. Mayer	Army
William R. Campbell	Army	D. C. McCann	Army
Ralph B. Cantrell	Navy	Frank W. Michaux, Jr.	Navy
S. Russel Casey, Jr.	Army	Raymond Ming	Navy
Robert Jack Chambers	Army	W. D. Morris	Army
W. A. Clark, Jr.	Navy	Frederick W. Mueller	Army
William M. Cogen	Army	Robert N. Niven	Army
Jack O. Colle	Army	K. R. Parsons	Army
W. P. Conway, Jr.*	Army	J. H. Pollard	Navy
John H. Crowell	Navy	George W. Pope, Jr.	Navy
Laurence F. Dake	Army	Frank Reedy	Navy
Flavy Eugene Davis	Navy	Frank C. Roper	Army
Charles Deblieux	Navy	R. A. Rowland	Army
V. B. Dowe	Navy	Chester Sappington	Army
J. E. Elliott	Army	Wilson G. Saville	Army
Frank G. Evans	Navy	F. M. Setzer	Army
John W. Flude	Navy	Fred E. Smith	Army
Frank J. Gardner	Army	Anthony Tamborello	Army
J. B. Garrett	Army	Landon C. Tennis	Army
John M. Golden	Army	John Todd	Army
Paul K. Goodrich	Army	L. J. Vittrupp	Army
Leo Carroll Gravis	Army	Joyce L. Waters	Navy
Cecil V. Hagen	Navy	H. Peyton Wells, Jr.	Army
J. F. Harang	Navy	James A. Wheeler	Army
Machael T. Halbouty	Army	H. E. Williams	Army
Edward A. Hamilton	Army	Raymond D. Woods	Army

* Deceased.

MEMBERS SERVING THE GOVERNMENT AS CIVILIANS DURING WAR

J. Boyd Best	Petroleum Administration for War
A. H. Bleyberg	Military Geology Unit, U.S.G.S.
E. O. Buck	P.A.W.
Alexander Deussen	P.A.W.
F. P. Donohoe	P.A.W.
W. B. Heroy	P.A.W.
F. Jackson	P.A.W.
L. W. Hewitt*	P.A.W.
E. L. DeGolyer	P.A.W.
W. W. LaRue	P.A.W.
C. D. Lockwood	P.A.W.
B. G. Martin	P.A.W.
C. P. Parsons	P.A.W.
Carlton D. Speed, Jr.	P.A.W.
W. E. Steele	P.A.W.
Cornelius Schnurr	P.A.W.
M. M. Slotnick	Bureau of Ordnance
J. Elmer Thomas	P.A.W.
Basil B. Zavoico	P.A.W.
M. King Hubbert	Board of Economic Warfare
Noyes D. Smith, Jr.	Naval Ordnance
Darrell S. Hughes	Naval Ordnance
George Sawtelle	P.A.W.

* Deceased.

OUR MEMBERSHIP

One is always interested in the size of an organization. Starting with 74 charter members in 1923, the Society now has 458 paid-up members, June 1946.

At least 584 members, for one reason or other, have dropped out of the Society; some have died, some have lost interest, and some have moved from Houston.

For the first few years the Society did not grow rapidly. According to W. D. Blackburn's report for October 2, 1925, there were 118 members, of which 62 were paid up and 56 were delinquent. For the next eight years the membership never reached 150. But after the discovery of the Conroe Field, the Society began to grow in size and a list dated April 24, 1933 carried 169 names. By February 1941 there were 371 paid-up members, but the mailing list included many more. The paid membership at the end of the fiscal year of 1942 was 351 with 51 new members added to the rolls. Hillard W. Carey reported in October 1943 there were 430 names appearing on the Society's mailing list, but only 325 dues were received by the treasurer. There were 35 new members in 1943. By February 1944 there were 450 members, and by the close of the fiscal year 1943-44 the membership totaled 515. Secretary W. B. Moore reported that of this number, three were honorary members, 23 were complimentary members, and 489 were regular members. During the year 27 severed their connection with the Society and seven new members joined the Society.

Now that the war is over, and many ex-service men are back on the rolls, Secretary Harry Kilian reported at the end of May 1946, 458 paid-up members, three honorary members and 22 complimentary members.

Honorary Life Members

Deussen, Alexander

Pratt, Wallace E.

Sellards, E. H.

The following list includes the names of the past members, followed by a list of active members as of June 1946.

PAST MEMBERS

- Achning, W. J.
 Adams, Frank C.
 Adkins, W. S.
 Alexander, W. H., Jr.
 Alabrough, Edwin D.
 Allen, Stanley R.
 Allison, J. N.
 Ames, E. R.
 Angle, W. M.
 Applin, Paul L.
 Applin, Esther Richards
 Bace, A. C.
 Back, Denys H.
 Baily, R. M.
 Bailey, Thos. L.
 Baker, C. L.
 Baker, Glen J.
 Baker, Leo L.
 Baker, Raymond F.
 Baldwin, E. B.*
 Banks, Thos. D.
 Banta, H. E.
 Barnett, J. A.
 Barlett, C. L.
 Bartless, Fred
 Barton, D. C.*
 Batla, Thos. W.
 Bay, Harry X.
 Beatty, Robert M.
 Becker, Raymond C.
 Bell, Douglas E.
 Bennett, C. M.*
 Benson, Dale L.
 Benton, L. B.
 Benz, Carl V.
 Berger, Walter R.
 Best, J. Boyd
 Bevier, Geo. M.
 Billings, M. H.
 Bingham, D. H.
 Black, W. D.
 Black, J. B.
 Blackburn, Willis C.
 Blackburn, Wm. D.
 Blanchard, J. B.
 Blanchard, S. W.
 Blanchard, W. Grant
 Boone, Dan E.
 Boos, C. Maynard
 Booth, Robert T.
 Bornhauser, Max
 Bradford, Chas E.
 Braunstein, Jules
 Brehm, Ralph C.
 Briscoe, Glenn O.
 Briggs, Robert C., Jr.
 Brodie, Gerson H.
 Brooks, Maurice S., Jr.
 Brown, D. R.
 Brown, Hart
 Brown, Samuel B.
 Brucks, E. W.
 Bruner, Frank
 Bruyere, Alan
 Bryant, J. O.
 Buchanan, G. A.
 Buck, E. O.
 Buckley, Stewart E.
 Bugbee, J. M.
 Bunte, Arnold S.
 Bunte, C. B.
 Burchfiel, H. L.
 Burford, Selwyn O.
 Burke, James D.
 Burke, Wm. F.
 Butcher, Seldon D.
 Butler, Frank H.
 Carlton, Dave P.
 Campbell, F. F.
 Campbell, J. G.
 Cannon, Robert L.
 Carr, G. W.
 Carroll, Don L.
 Carter, V. C.
 Carter, Wm. H., Jr.
 Cartwright, Joiner
 Castle, A. C.
 Cave, Harold S.
 Charlton, Frances
 Christie, Lawrence G.
 Clapp, E. Gardner
 Clark, R. C.
 Clark, R. P.
 Clark, W. K.
 Clark, W. Kenley
 Clawson, W. W.
 Clement, George M.
 Clifford, O. C., Jr.
 Cline, L. M.
 Cloyes, S. B.
 Collier, John J., Jr.
 Conklin, Henry
 Constant, Warren
 Conway, W. P., Jr.*
 Coolidge, W. C.
 Coon, Maisie I.
 Copeland, R. R.
 Crandall, Kenneth H.
 Crawford, Gayle P.
 Crichton, J. A.
 Cronin, Stewart
 Crump, John Gillman H.
 Cummins, W. F.*
 Davey, M. A., Jr.
 Davis, Wm. B.
 DeBlieux, Charles
 Decker, La Verne
 DeGolyer, E. L.
 DeLoach, Edw.
 Deschartre, Gilbert
 Desjardins, Louis
 Dewess, E. J.
 DeWolf, Frank W.
 Dings, McClelland
 Dissinger, Earl
 Doering, John
 Donnally, Chester J.
 Donoghue, David
 Dougherty, Geo. M.
 Doyle, Hugh P.
 Doyle, Robert
 Dumble, E. T.*
 Echols, Dorothy Jung
 Edgerton, C. E.
 Eickbaum, Chas. W., Jr.
 Eickelberger, O. H.
 Elledge, George*
 Elliott, J. E.
 Ellton, J. E.
 Edsell, J. D.
 Emrick, D. G.

* Deceased

ROCKHOUNDS OF HOUSTON

- | | | |
|---------------------|-------------------------|---------------------------|
| Esgen, W. K. | Hamilton, Robert G. | Hughes, James D. |
| Evans, Noel | Hamilton, W. R.* | Hughes, S. Darrell |
| Fahle, Paul B. | Hammel, Wm. R. | Hutcheson, James* |
| Feland, O. D., Jr. | Hamm, W. D. | Hutchinson, F. M. |
| Ferrando, A. | Hamman, Geo. F. | Hyer, Robert S. |
| Ferguson, W. B. | Hamner, Ed. J. | Ingham, W. I. |
| Fields, Geo. W. | Hansen, M. B. | Innes, Arland I. |
| Finch, E. H. | Hanson, Douglas W., Jr. | Jackson, J. R., Jr. |
| Fisher, Leslie | Harrell, M. A. | Jaqua, Charles G. |
| Flint, H. T. | Harrington, George H. | Jensen, Christian |
| Forney, Maurice E. | Hartley, Burton | Jett, J. E. |
| Forsyth, R. J. | Harvey, Castle J. C. | Johnson, Samuel C. |
| Fostick, A. R. | Haase, Fred M. | Johnston, Robert H. |
| Franklin, Louis | Hatfield, Forrest* | Johnston, Ralph A. |
| Freedman, L. H. | Hayes, Dick | Jones, Paul H. |
| Fulk, Frank E. | Heath, F. E. | Josey, Jack S. |
| Funkhauser, E. M. | Hemingway, Caroline E. | Kaselitz, F. |
| Gardner, Frank J. | Henderson, Max | Kelley, W. W. |
| Garrett, L. P.* | Heninger, D. D. | Kelly, John |
| Garst, Jarvis | Henley, A. S.* | Kemp, Harold S. |
| Gaul, Geo. H. | Henninger, W. F. | Kerlin, Marcellus L. |
| Gaynor, John S. | Herndon, H. | Kisling, J. W., Jr. |
| Gella, Norbert | Heroy, Wm. B. | Knebel, George Moses |
| Geyer, F. Park | Herrington, Louise | Kniker, Hedwig T. |
| Gibbs, James F. | Hesse, C. J.* | Knox, John K. |
| Gillbergh, J. R. | Heath, F. E. | Kolm, R. N. |
| Gilmour, A. | Hewitt, Lawrence W.* | Kohn, R. N. |
| Ginther, N. C. | Hickey, Maude | Kraus, Edgar |
| Goerner, Fred S. | Hier, C. D. | Krell, Oliver |
| Gould, Jas. N. | Hightower, C. H. | Krey, F. |
| Gracht, A. van der | Hillis, Doniul | Kristofferson, O. H. |
| Gravell, Donald W. | Hilsewech, W. J. | Lalicker, Cecil G. |
| Gray, R. Gordon | Hoard, J. O. | Lancaster, L. Kenneth |
| Gray, S. R. | Hoffman, Arnold D. | Langton, Claude M. |
| Gray, Wm. D. | Holland, P. O. | Lay, Pat |
| Greenman, W. E. | Holman, Eugene H. | LaRue, J. E. |
| Gregory, J. N. | Holmesly, S. F. | LaRue, Wilton W. |
| Griffith, C. L. | Hoover, J. W. | LaTouche, John D.* |
| Grigsby, G. O. | Horner, Wm. L. | Lawrence, Thos. H. |
| Grimes, Russell W. | Horton, H. M. | Leavitt, Wm. B. |
| Grogan, S. A. | Hougen, Bernie | Lee, Gabriel J., Jr. |
| Gsell, R. N. | Hough, Jack L. | Lester, O. C., Jr. |
| Hager, Dilworth S. | Houghton, H. M. | Levorsen, A. Irving |
| Hager, Lee* | Housard, Chas. O. | Levy, Arthur G. |
| Hager, R. E. | Housh, C. N. | Lieb, Victor |
| Hahnberg, L. F. | Houssiere, Louise I. | Locke, Edgar R. |
| Hale, Donald H. | Howard, Edward L. | Lockwood, C. D. |
| Halstead, M. E. | Howeth, Irwin K. | Lodley, J. R. |
| Hamilton, Edward A. | Hubbard, Ford | Logan, Jack |
| Hamilton, Henry L. | Huddleston, Arthur N. | Longnecker, Oscar M., Jr. |

* Deceased

ROCKHOUNDS OF HOUSTON

Lowrie, H. W., Jr.*	McDannald, Morris	Porter, Phil
Lozo, Frank E., Jr.	McGlamery, Winnie	Powers, Sidney*
Lucky, M. C.	McIver, D. T.	Prettyman, T. M.*
Lund, Gage	McKague, Bruce	Price, W. Armstrong
Mackay, Donald K.	McLendon, D. H.	Quilliam, William
Maddren, A. G.	McLeod, Angus	Rade, H. S.
Madera, Ruford F.	McMillan, Joseph M., Jr.	Rainwater, Edward H.
Mahaffey, Fred, Jr.	McWhirt, Burr	Raisch, E. J.
Maiweg, Niels	Nance, A. A.	Ralston, W.
Mahoney, J. F.	Nance, A. G.	Ransone, Keating*
Malkin, Doris S.	Nash, Paul	Ray, Richard L.
Manger, G. E.	Neely, J. C.	Redfield, Robert C.
Manion, C. E.	Neer, Carl J.	Reed, Lyman C.
Mannes, W. H.	Neill, Wenzel B.	Reed, L. S.
Markham, H. B.	Nele, John J.	Reed, Warren B.*
Marston, R. L.	Nelimark, John H.	Reese, Donald M.
Martin, Ben H.	Neumann, G.	Reichert, H. G.
Mason, A. E.	Newby, C. J.	Reid, Wm. M.*
Masterson, Reba	Newell, W. John	Reiss, John W.
Matter, Robert	Newman, Grace	Renick, B. Coleman
Mayer, Maurice J., Jr.	North, Lloyd	Reynolds, F. F.
Mebane, Robert	Notestein, Frank B.	Rhine, Elton
Menger, Hubert E.	Nowery, J. E.	Richardson, Carl B.
Merritt, H. W.	Nowotny, Wilbur A.	Richardson, H. T.
Merten, Eugen	Obering, E.	Ries, Minette
Metcalf, R. J.*	Oldham, A. E.	Roberts, Dwight C.
Milam, Lynn	Oldham, L. C.	Roberts, Louis C., Jr.
Miller, Arthur B., Jr.	Owens, Frith C.	Roberts, Marion S.
Miller, E. F.	Pack, R. W.	Rogers, Jas. K.
Miller, Emma J. Coffman	Palmer, J. C.	Roerig, H. A.
Mills, Coe S.	Parent, Frank W.	Rosaire, Carol G.
Milton, W. B., Jr.*	Patrick, H. G.	Ross, E. McIver, Jr.
Minkofsky, Anna	Patton, Jake L.	Ross, Gene
Mintrop, L.	Pattison, W. H.	Rowan, S. F.
Mitchell, Harold D.	Peden, Allen J.	Ruska, Walter
Moir, John	Peeples, E. M., Sr.	Russell, Clarence A.
Monsour, Eli T.	Pendergrass, R. V.	Russell, Hewlett A.
Moree, Robert W.	Perebinossoff, A. A.	Russell, Wm. L.
Morero, J. E.	Perini, V. C.	Ryan, Reginald G.
Morey, Philip S.	Peterson, H. C.	Ryan, Russell F.*
Mornhinveg, A. R.	Petty, Dabney E.	Sager, Charles E.
Morris, A. F.	Phelan, Stephen Rice	Sanders, C. W.
Morse, P. F.	Phillips, Edward D.*	Sartain, M. R.
Mosher, Wm. N.	Picton, E. B.	Schander, Johannes
Mott-Smith, L. M.	Piggott, Guido M., Jr.	Schaeffer, Hugh C.
Murchison, E. A., Jr.	Pilcher, Ben L., Jr.*	Schempf, F. J.
Murphy, P. C.	Pinkley, George R.	Schilling, K. H.*
Muse, Victor E.	Plummer, F. B.*	Schmidt, K. A.
MacNaughton, L. W.	Plummer, Helen Jeanne	Schmotzer, Julius Wm.
McDermott, Eugene	Porch, E. L., Jr.	Scholl, L. A., Jr.

* Deceased

ROCKHOUNDS OF HOUSTON

- Schriner, D. C.
 Schwarz, Melvert E.
 Schwennessen, A. T.
 Schofield, Aubrey
 Scopes, J. T.
 Scott, Edw. W.
 Scrogin, John M.
 Scruggs, M. D.
 Seale, Robert I.
 Sealey, Fred C.
 Seashore, J. O.
 Seashore, Paul T.
 Secor, D.
 Seydoux, R.
 Shakely, Ed.
 Shayes, Fred P.
 Shepard, E. R.
 Sherar, Stuart
 Shields, Fred C.
 Sims, Sam E.
 Sisson, Harry H.
 Smirnoff, M. H.
 Smiser, Jerome S.
 Smith, Fred E.
 Smith, G. N.
 Smith, G. S.
 Smith, Neal J.
 Smith, Sidney
 Smith, S. Lawrence
 Smith, Walter R.
 Smith, W. D., Jr.
 Snow, Robert
 Somers, George W.
 Sorenson, I. L.
 Spears, Walter H.
 Spencer, J. S.
 Spooner, Knight K.
 Stamey, Roderick A.
 Steig, M. H.
 Stein, Ira H.
 Steinberger, C. R.
 Steiner, George*
- Stephens, C. O.
 Stewart, Chas. A.
 Stewart, C. H.
 Stien, Pete
 Stiles, Edward B.
 Stiles, Elisabeth
 Stiles, W. E.
 Stonehan, S. Lloyd
 Storm, L. W.
 Stoutt, L. W.
 Strang, Wm. H.
 Stramler, J. W.
 Stubbe, Gerhard
 St. Clair, D. W.
 Suman, John R.
 Sundt, O. F.
 Sutton, Chase E.
 Sweet, R. C.
 Swigart, T. E.
 Tash, G. E.
 Teague, J. U.
 Teague, N. P.
 Templeton, James C.
 Tennis, Langdon C.
 Thaete, E. H.
 Thomas, J. Elmer
 Thomas, J. W.
 Thomas, Wm. T.
 Thompson, S. A.
 Thompson, Roy
 Thornburgh, H. R.
 Torkelsen, O. I.
 Tough, F. B.*
 Trager, H. Harold
 Treybig, Lucille Evelyn
 Tucker, Reagan
 Turkel, Julius M.
 Tygrett, H. V.
 Van Burgh, L. R.
 Vaughan, F. E.
 Vieaux, Don G.
 Vincent, Don G.
- Viry, R.
 Vrana, Wm.
 Wade, R. T.
 Wall, Earle R.
 Wallace, W. H., Jr.
 Ward, R. C.
 Ware, T. Preston, Jr.
 Washburn, Carlton F.
 Waters, Joyce I.
 Weatherston, Douglas
 Weddle, H. N.
 Weeks, A. W.
 Wegemann, Carroll H.
 Weingartner, R. A.
 Weinzierl, John F.
 Weinzierl, Laura L. Lane*
 Wender, W. C.
 Wendlandt, E. A.
 Wheeler, J. D.
 White, Richard D.
 Whitehead, R. B.*
 Wilgus, W. L.
 Williams, Allen (G. A.)*
 Williams, Chas. H.
 Williams, L. H.
 Williams, Neil
 Williams, W. A.
 Willias, Robin
 Wilson, E. B.
 Wilson, Gilbert M.
 Wilson, J. A.
 Wilson, Joseph M.
 Wohlford, Chas. W.
 Wooten, Jane
 Wright, A. C.
 Wright, Hugh
 Wright, Randall
 Wyckoff, Ralph D.
 Yager, C. E.
 Young, C. T.
 Young, Karl E.*
 Zoller, H. E.

* Deceased

ACTIVE MEMBERS

- | | | |
|-----------------------|-------------------------|--------------------|
| Adams, John Emery | Bowles, R. C. | Clark, Frank T. |
| Adler, Joseph L. | Bowling, Leslie | Clark, Geo. H. |
| Akkerman, R. P. | Bowman, Wayne F. | Clark, Paul H. |
| Albertson, M. | Bowsky, Merle C. | Clark, W. A., Jr. |
| Allin, P. R. | Boyce, John V. | Claypool, C. B. |
| Allison, A. P. | Boyd, L. H. | Clayton, John M. |
| Anderson, John G. | Brace, O. L. | Clement, Geo. M. |
| Andrau, E. W. K. | Brenner, Dorothy Louise | Clough, K. H. |
| Andrews, Sterling | Briard, Vernon E. | Coddou, R. B. |
| Atwater, Gordon I. | Bricker, John F. | Cogen, Wm. M. |
| Bader, Glenn E. | Bright, Anna Lou | Coleman, H. P. |
| Baker, Warren | Brill, V. A. | Colle, Jack O. |
| Baker, Wm. A., Jr. | Brinkerhoff, Ira | Collett, J. Daviss |
| Ballard, James | Brokaw, John M., Jr. | Cooke, W. F., Jr. |
| Banks, Overton B. | Brooks, J. A., Jr. | Cortes, Henry C. |
| Barber, C. F. | Broussard, Chester | Craig, Jack W. |
| Barber, T. D. | Broussard, Lloyd J. | Critz, J. S. |
| Barnes, C. W. | Broussard, M. U. | Crowell, John H. |
| Barragy, Ed. J. | Bryan, B. F. | Crume, R. W. |
| Barrow, L. T. | Buchanan, Geo. S. | Cruse, John S. |
| Bauernschmidt, A. J. | Bunsen, A. W. | Culbertson, J. A. |
| Bayle, Pierre | Burkhead, Wayne Z. | Curran, J. M. |
| Baynes, L. L. | Burt, Frederick A. | Dacey, R. L. |
| Beckelhymer, R. L. | Burton, Edwin Jr. | Dake, Laurence F. |
| Beeth, C. D. | Burton, Joseph M. | Darling, Jack N. |
| Behrman, R. G. | Byers, John M. | Davis, Flavay E. |
| Beilharz, Carl F. | Byron, C. W. | Davis, Donald M. |
| Bell, Olin G. | Caldwell, Watson L. | Davis, Morgan J. |
| Belt, Ben C. | Calohan, Wm. F. | Davison, Wayne C. |
| Belt, W. E., Jr. | Campbell, J. L. P. | Dawson, R. A. J. |
| Benish, R. L. | Campbell, Lois J. | Day, Willard L. |
| Bennett, E. O. | Campbell, Wm. R. | Denham, R. L. |
| Bennett, Malcolm D. | Cantrell, Ralph B. | Deussen, Alexander |
| Benson, Don G. | Carey, Hillard W. | Dillon, E. C. |
| Benson, E. T. | Carter, Chas. W. | Dinger, W. C. |
| Berg, G. A. | Cartwright, Lon D., Jr. | Dodd, James G. |
| Berthiaume, S. A. | Casey, S. Russell | Doll, Henri George |
| Bertram, A. C. | Cashin, D'Arcy M. | Donohue, Frank P. |
| Billups, Val T. | Castel, Jacques H. | Dorr, James B. |
| Black, J. P. | Chabas, P. | Dow, V. B. |
| Blackstone, Thomas W. | Chambers, Jack | Downey, Hugh P. |
| Blau, L. W. | Charrin, P. | Draper, A. L. |
| Bleyberg, Arnold H. | Childerhose, A. J. | Dunnam, S. E., Jr. |
| Bloom, Ben | Childers, A. F., Jr. | Durgan, H. L. |
| Blynn, Ralph G. | Chombart, L. G. | Durkee, Robert R. |
| Bocock, Oscar | Chun, H. A. | Earl, E. L. |
| Born, Howard R. | Clark, Beryl L. | Eby, J. Brian |
| Bostick, F. X. | Clark, Clare M. | Edson, Dwight J. |

ROCKHOUNDS OF HOUSTON

- | | | |
|------------------------|-------------------------|--------------------------|
| Elliott, Andrew C. | Grinsfelder, Sam | Iden, Christian |
| Ellis, Albert D., Jr. | Grossman, William L. | Igau, Hubert C. |
| Ellisor, Alva C. | Grossjean, Robert | Ikins, W. C. |
| Evans, Frank G. | Grubb, Maurice T. | Israelsky, M. C. |
| Fenn, Ivan J. | Gunby, Merle | Ivy, John S. |
| Ferguson, Hershhal C. | Guyod, H. | Jackson, R. S. |
| Ferguson, J. B. | Hagen, Cecil V. | Jay, Stanley E. |
| Ferguson, Kenneth H. | Hager, W. H. | Jenny, W. P. |
| Ferrero, Clarence | Halbouty, M. T. | Jennings, Phillip H. |
| Flude, John W. | Halbrook, F. W. | Johnston, Harry W. |
| Fohs, F. Julius | Hall, T. O. | Jones, Harold E. |
| Fly, Paul J. | Hamman, John, Jr. | Jones, Park J. |
| Fransen, David C. | Hancock, Wm. T., Jr. | Jones, Robt. L. |
| Franz, Leslie J. | Hanna, Gordon | Jones, Wayne V. |
| Freeborn, F. W., Jr. | Hanna, Marcus A. | Judson, Sidney A. |
| Frerichs, A. L. | Hansard, C. O., Jr. | Judy, Rosalie R. |
| Foster, Paul Woodward | Hanson, Ed V. | Justice, P. S. |
| Fritts, H. M. | Harang, J. F. | Keating, T. W. |
| Fritz, E. R. | Hardin, Geo. C., Jr. | Kendall, H. A. |
| Frost, J. M., III | Harkins, T. I. | Kidd, Gentry |
| Fry, Earl E. | Hasselmann, K. F. | Kilian, Harry |
| Fulghorn, Henry L. | Hedley, J. David | Kirby, Grady |
| Fuqua, H. B. | Hedley, T. D. | King, June |
| Fuqua, Marjorie | Henquet, R. | Konkel, Philip M. |
| Gahagan, Donald I. | Herald, Elisabeth Anne | Kornfeld, M. M. (Travis) |
| Gailbraith, T. J. | Herold, C. L. | Kovac, M. S. |
| Gale, Arthur S., Jr. | Herring, L. B. | Ladner, Albert L. |
| Gantt, Fulton S. | Higgs, Morton T. | Lake, Charles L. |
| Gardescu, I. I. | High, John A. | Lamb, Geo. B. |
| Gardner, Frank J. | Hinson, Hillard | Langford, O. F. |
| Garrett, J. B. | Hinyard, Paul B. | Lang, Joe W. |
| Geis, H. L. | Hodder, R. F. | Larke, John |
| Getzendaner, A. E. | Holbrook, F. W. | Larke, Walter |
| Gibson, H. A. | Holcomb, C. W. | Larson, Carl L., Jr. |
| Gilbert, Mrs. Helen W. | Holcombe, D. S. | Laskey, Bernard |
| Glass, Wilson V. | Holland, Mary L. | Lassiter, D. L. |
| Golden, John M. | Holland, Richard M. | Lawhorn, O. T. |
| Goldich, Samuel S. | Holliday, Samuel | Lay, Roy L. |
| Goldston, W. L. | Holmberg, L. F. | Leach, Wm. J. |
| Goldstone, F. | Hornberger, Joseph, Jr. | Leavenworth, P. B. |
| Gollnick, Robert L. | Horvitz, Leo | Lee, George C. |
| Goodrich, Paul K. | Hough, Howard | Lee, W. B. |
| Goodrich, R. H. | Houston Engineers Club | Legrand, J. C. |
| Gordon, Dugald | Howard, Lewis B., Jr. | Leonardon, E. G. |
| Gorman, William A. | Hoyt, W. V. | Lester, John A. |
| Graham, John R. | Hubbert, M. King | Lewis, James O. |
| Graham, R. G. | Huff, John E., Jr. | Lewis, Ray C. |
| Gravis, Leo C. | Hull, J. P. D. | Lewis, T. L., Jr. |
| Gray, Geo. R. | Hummel, Henry L. | Lewis, Wendell |
| Gray, Shapleigh G. | Hunter, Paul B. | Lindsey, Sidney A. |
| Griffin, I. M., Jr. | Hutchins, Robt. M., Jr. | Long, Alfred B. |

ROCKHOUNDS OF HOUSTON

- | | | |
|------------------------|-----------------------|--------------------------|
| Lonsdale, John T. | Morris, W. D. | Quigley, C. M., Jr. |
| Lott, Alfred W. | Morrison, T. E. | Rabensburg, A. H. |
| Lowman, S. W. | Morse, Roy R. | Ray, Robert H. |
| Lynch, S. A. | Mower, L. K. | Reasoner, M. A. |
| Lyons, R. T. | Mueller, Frederick W. | Redden, E. N. |
| Lytle, J. Ed. | Murdock, Ernest J. | Reed, Charles M. |
| McAdams, R. E. | Murphy, B. F. | Reed, E. M. |
| McCann, D. C. | Myers, John C. | Reedy, Frank |
| McCann, K. G. | Myers, P. A. | Reiter, W. A. |
| McCarter, C. E. | Neale, John J. | Remick, David B. |
| McCarter, W. B. | Nelson, F. A. | Reynolds, R. D. |
| McClain, O. G. | Nelson, F. M. | Ricks, F. M. |
| McDonald, H. W. | Nettleton, L. L. | Riddle, J. I., Jr. |
| McFerron, Geo. I. | Neuman, L. J. | Rieke, R. R. |
| McGee, John E. | Newfarmer, Leo R. | Ring, Roland |
| McGowan, F. H. | Nichols, I. K. | Ritz, C. H. |
| McGuirt, J. H. | Nichols, Ralph G. | Rogers, Sam D. |
| McLellan, H. J. | Nicholson, John L. | Robertson, P. A. |
| Mackintosh, John A. | Niven, Robert N. | Robinson, Ernest Guy |
| Maercky, P. George | Noble, Homer A. | Robinson, Florence Marie |
| Magalis, C. W. | Noland, O. W. | Rolshausen, F. W. |
| Maginnis, C. F. | Nye, Geo. L. | Roper, Frank C. |
| Manes, O. B. | O'Bannon, P. H. | Rosaire, E. E. |
| Marr, John D. | Oetjen, Phyllis M. | Rose, H. W. |
| Martin, B. G. | Ogg, Thomas A., Jr. | Rose, N. A. |
| Martin, J. C., Jr. | Olcott, Perry | Rowland, R. A. |
| Martyn, Phil F. | Orynski, Leonard | Rucker, Florence |
| Marx, A. H. | Osterhoudt, Walter J. | Runion, Felix A. |
| Mason, Shirley L. | Owen, Kenneth Dale | Sample, C. H. |
| Masterson, L. C. | Pabst, A. G. | Sampson, C. M. |
| Mathes, Don E. | Parker, Herbert | Sappington, Chester |
| Mathieu, J. L. | Parker, Travis J. | Sargent, R. L. |
| Meyers, P. A. | Parker, W. G. | Sasse, J. B. |
| Michaux, Frank W., Jr. | Parsons, C. P. | Saville, Wilson G. |
| Miller, Buford | Parsons, K. R. | Sawtelle, George |
| Miller, F. J. | Patrick, W. W. | Schafer, Sydney |
| Miller, Howard L. | Pawley, J. K. | Schnurr, C. |
| Miller, John C. | Paxson, Roland B. | Schumacher, J. P. |
| Mincher, Albert R. | Peacock, H. B. | Schwede, H. F. |
| Ming, Raymond E. | Percy, Charles S. | Scott, Gayle |
| Minor, H. E. | Petrick, Glenn | Self, S. R. |
| Mitchell, Geo. D., Jr. | Petrusek, Ben J. | Selig, A. L. |
| Mitchell, Geo. P. | Peoples, E. M., Jr. | Sellards, E. H. |
| Mitchell, R. B. | Pixler, B. Otto | Seren, G. W. |
| Montgomery, J. C. | Pollard, J. H. | Setzer, F. M. |
| Moore, J. A. | Pollard, Jack C. | Sharp, C. S. |
| Moore, Wm. B. | Pope, George W. | Sheets, Martin M. |
| Morgan, Ben F. | Powless, R. C. | Short, E. H. Jr. |
| Morgan, John | Pratt, Wallace E. | Simmons, Ben T. |
| Morris, A. F. | Prough, Richard G. | Skinner, D. U. |
| Morris, L. H. | Pyeatt, Lloyd M. | Sloan, J. Paul |

ROCKHOUNDS OF HOUSTON

Slotnick, M. M.	Taylor, Josiah	Waters, H. Clay, III
Smith, A. E.	Taylor, Thomas F.	Warner, C. A.
Smith, Aylwin L.	Taylor, W. Harlan	Wasson, Theron
Smith, Ed J., Jr.	Teas, L. P.	Weaver, Paul
Smith, Erwin W.	Teten, R. P.	Welch, David L.
Smith, G. J.	Tevis, R. Starley	Welch, R. A.
Smith, Fred L., Jr.	Thompson, E. G.	Weld, John S.
Smith, Noyes D., Jr.	Thompson, E. I.	Wells, H. Peyton, Jr.
Smith, Rex M.	Thompson, Ray J.	Welsh, L. G.
Sollars, Perry F.	Thompson, Wallace C.	West, J. F.
Somers, Geo. B.	Thornton, Owen F.	Westmoreland, Frank S.
Sowarby, Joe M.	Todd, John D.	Weymouth, A. Allen
Sparenberg, G. R.	Todd, Oliver J.	Wheeler, Jas. A.
Spahr, M. R.	Traupe, Lloyd D.	White, Dan J., Jr.
Speed, Carlton D., Jr.	Travis, M. M.	White, Gordon H.
Spoor, H. C., Jr.	Troxell, J. N.	Whitmore, C. M.
Spyres, H. L.	Turner, F. Earl	Wilbur, F. S.
Stangy, Frank J.	Tyson, A. K.	Wilhelm, O.
Starquist, Virginia L.	Vance, Harold	Williams, Herbert E.
Steele, W. E., Jr.	Van Everdingen, A. F.	Williams, James P.
Stephenson, Elizabeth E.	Vaudoit, P. L.	Wilson, A. N.
Stephenson, M. B.	Vetter, John M.	Wilson, Homer C., Jr.
Sternenson, Elizabeth	Vittrup, L. J.	Wilson, F. Wayne
Stevens, Geo. D.	Vogler, E. A.	Winter, A. B.
Still, J. T.	Voight, Harold E.	Wolf, Albert G.
Stoddard, Gail H.	Volk, H. W., Jr.	Wood, Mary C.
Stratton, Everett F.	Von Eiff, H.	Wood, Owen B.
Stuckey, Chas. W., Jr.	Von Roeder, B. G.	Woods, R. D.
St. Germain, R. J.	Wallace, D. M.	Woods, J. S.
Taggart, Millard S.	Walter, E. J.	Zaba, Joseph
Tamborello, Anthony	Walton, Britain W.	Zavoice, Basil B.
Tatum, E. P.	Warren, Howard C.	Zimmerman, C. C.

PROGRAMS OF THE SOCIETY

Program for 1929-1930

October 22, 1929	W. G. Thiele	Gave a discussion and demonstration of a Bomberg torsion balance.
October 29, 1929	L. H. Daingerfield	Evolution of Climate.
	Dr. E. H. Sellards	Sour Lake Sinks.
November 5, 1929	Dr. C. L. Baker	Major Structural Features of the Greater Cordilleras.
November 12, 1929	Sidney A. Judson	Crooked Holes.
November 19, 1929	Christian Iden	Described and demonstrated a new Teepfer Magnetometer.
	Dr. Donald C. Barton	Discussed to some length the use of magnetometers.
November 26, 1929	Donald C. Barton	Deltaic Coastal Plain Character of Southeastern Texas.
December 3, 1929	Victor E. Lieb	Old Spanish Gold Mines in Louisiana.
December 10, 1929	Charles L. Baker	Laramie Thrust of Trans-Pecos.
December 17, 1929	Special night meeting at the University Club. Dr. Numerov and F. B. Plummer. Titles of talks were not recorded.	
December 31, 1929	Oscar Longnecker, Jr.	The Seymour Formation.
January 7, 1930	Talk by John Weinzierl	No title.
January 14, 1930	Christian Iden	A demonstration of another geophysical instrument.
January 28, 1930	Dr. George Steiner	Demonstration of the New Rybar Instrument.
January 31, 1930	Special night meeting at the University Club.	
	Dr. Norbert Gella	A Treatise on Geophysical Research Methods.
February 4, 1930	Fred P. Shayes	History of Refugio Oil Field.
February 11, 1930	Russell Ryan	The Geology and Pavements of Cuba.
February 18, 1930	J. D. Isaacks	Progress in Drilling Methods.
February 25, 1930	Sidney A. Judson	Deep Sand Development at Barbers Hill, Chambers Co., Texas.

ROCKHOUNDS OF HOUSTON

March 4, 1930	W. Armstrong Price	Porosity of a Gas Sand at White Point.
April 1, 1930	Gilbert Deschartre	Electrical Correlation of Wells.
April 8, 1930	Charles L. Baker	The Overthrusts of Northeast Mexico Cordillera.
April 25, 1930	Prof. Rydar of Germany	Torsion Wires and Air Currents.
May 6, 1930	Paul Weaver	Formations of Large Salt Deposits.
May 13, 1930	E. J. Raisch	Cost of Geophysical Exploration.
May 20, 1930	John F. Weinzierl	Wiggle Sticks.
May 27, 1930	Eugene A. Stephenson	Recent Developments in the Practice of Water Flooding.
June 10, 1930	Lt. Col. David Ferguson	Rivers.
June 24, 1930	Prof. W. Lindgren of Russia	Relation of General Geology to Oil Geology.
July 29, 1930	Donald C. Barton	A New Thought on the Mechanics of Salt Domes.
August 5, 1930	Alva C. Ellisor	Correlation of the Jackson.
August 12, 1930	C. L. Baker	New Data on Ordovician and the Prime Structural Problem of the Marathon Basin.
August 26, 1930	Donald C. Barton	Structural Role of Salt Domes in the Accumulation of Petroleum.
September 16, 1930	Henry C. Cortes	Further Comment on Geophysics in South Louisiana.

Program for 1930-1931

October 22, 1930	Night Meeting, University Club: President Sidney Powers R. D. Reed Marvin Lee	Association Affairs and Plans for the Convention in San Antonio, March 1931.
October 27, 1930	Luncheon honoring Dr. O. F. Meinzer of the U.S.G.S. and his two assistants, Walter N. White and Penn Livingston.	
December 9, 1930	Movies of the recent Brenham Field Trip.	
December 16, 1930	Donald C. Barton	Aeroplane Photograph of Blue Ridge and vicinity.
January 13, 1931	Chas. L. Baker	Glacial Deposits of the Upper Haymond in the Marathon Area.

ROCKHOUNDS OF HOUSTON

January 20, 1931	John F. Weinzierl	Franz Beyschlag's Geologische Karte der Erde.
February 3, 1931	Dr. W. T. Thorn, Princeton University	Yellowstone Area, Yellowstone Park, Wyoming.
February 10, 1931	L. P. Teas	The Hockley Salt Dome Caprock Contact at Hockley Salt Mine.
March 10, 1931	Merle C. Israelsky	East Texas Sands.
March 12, 1931	Evening Meeting Roy E. Leigh	A Socialized Oil Industry (Russian Oil Industry).
June 3, 1931	Film from Austin shown at Rice Institute, Through Oil Lands of Europe, Africa, Italy, Hungary, the Danube and Rumania.	
September 18, 1931	Special Night Meeting, University Club: Donald C. Barton	Natural History of Gulf Coast Crude Oil.
The papers presented 1931-1932 were printed and given to each member of the Society.		
October 22, 1931	O. C. Lester, Jr.	Seismic Weathered or Aerated Surface Layer.
October 29, 1931	G. W. LeMaire	The Refining of Crude Oil.
November 5, 1931	Dr. W. T. Thorn, Jr.	The Trend of Coal, Petroleum and Natural Gas Production and Consumption in the United States.
December 3, 1931	Standardized Gulf Coast Dome and Oil Field Names as approved by The Houston Geological Society's Nomenclature Committee, The Houston Geological Society, The Texas Gulf Coast Scouts Association, The Louisiana Gulf Coast Oil Scouts Association.	
December 4, 1931	Evening Meeting, University Club, Kenneth Hartley	Illustrated Lecture: Glaciation in the Colorado Rockies.
December 10, 1931	Marcus A. Hanna	Notes on the Grand Saline Salt Dome, Van Zandt Co., Texas.
January 7, 1932	John C. Myers	Notes on the History of Development and Oil Possibilities of Eastern Colorado.
January 14, 1932	Paul Weaver	Smackover: A Salt Dome.
January 28, 1932	Special Night Meeting, University Club: Paul Weaver Donald C. Barton	Geophysics of the Soil. Iberian Structural Axis, Louisiana.
February 11, 1932	W. Armstrong Price	The Reynosa Problem.

ROCKHOUNDS OF HOUSTON

February 25, 1932	Neil Williams	How We Collect Oil Data.
March 3, 1932	E. E. Rosaire and Elisabeth Stiles	Some Empirical Relationships Existing in Salt Dome.
March 10, 1932	Marcus A. Hanna	Notes on Heavy Mineral Concentrates Along the Coast of Texas.
March 17, 1932	Karl E. Young	Origin of Oil in the Gulf Coast.
March 31, 1932	Dr. George B. Somers	A Torsion Balance Party in Columbia.
April 7, 1932	V. E. Lieb	The Distribution of Vegetation in Relation to the Cretaceous, Eocene and Younger Formations of Texas.
April 14, 1932	Frank C. Adams	A Study of the Wildcat Drilling in the San Antonio Territory with Reference to the Discovery Costs of Oil.
April 30, 1932	Joint meeting with the Petroleum Engineering Class from Texas University. Papers by: Sidney A. Judson Dr. E. E. Rosaire L. P. Teas	Barbers Hill. Vermilion Bay Dome. Raccoon Bend.
May 5, 1932	M. H. Steig	Highway Geologic Guide to Northern Mexico.
May 12, 1932	Sidney A. Judson	Segmentation of Oil Sands at Barbers Hill.
June 23, 1932	George M. Dougherty	Map Compilation and its Bearing on Geological, Geophysical and Allied Branches of the Oil Industry.

Incomplete Record for 1932-1933

February 1, 1933	J. Brian Eby	North Germany Salt Dome Basin.
April 3, 1933	W. P. Jenny	Structural Trends in Florida.
June 1, 1933	Night Meeting, Public Library: Alva C. Ellisor	Jackson Formation with Notes on the Frio.
June 6, 1933	Night Meeting, Public Library: W. E. Wrather	Spoke on his Geological Expedition in South Africa, Illustrating with Motion Pictures.
June 29, 1933	Paul Weaver	Drilling of Shallow Holes for Geological and Geophysical Prospecting.
August 3, 1933	Joseph L. Adler	Lake Superior Iron Ore Deposits.

ROCKHOUNDS OF HOUSTON

Incomplete Record for 1933-1934

November 9, 1933	J. L. Mathieu	Schlumberger Electrical Logging of Drilled Wells.
February 1, 1934	J. Brian Eby	North German Salt Dome Basin.

Program for 1934-1935

November 1, 1934	E. O. Buck	Bottom Hole Pressures in the Conroe Fields.
November 22, 1934	John T. Lonsdale	Underground Water in South Texas and the Possibilities of Artificial Ground Water Recharge.
December 14, 1934	J. Brian Eby	The Relation of Geophysics to Salt Dome Structures.
December 18, 1934	Special Night Meeting in Physics Lecture Room, Rice Institute: A. I. Levorsen	Application of Paleo-Geology.
January 3, 1935	E. W. Brucks	Buckeye Oil Field.
January 10, 1935	D. M. Secor	Hull Salt Dome.
January 17, 1935	John Doering	Post-Fleming Formations of the Gulf Coastal Plain.
January 25, 1935	M. C. Israelsky	Tentative Foraminiferal Zonations of the Subsurface Claiborne of Texas and Louisiana.
February 21, 1935	Night Meeting, Assembly Room of Chamber of Commerce: J. S. Hudnall	Compressibility of the East Texas Reservoir Rocks and its Relation to the Production of Oil.
February 28, 1935	L. W. Storm	The Claiborne Formations of Southwest Texas.
March 7, 1935	Night Meeting, Assembly Room of Chamber of Commerce: T. V. Moore	Water Drive in the East Texas Field.
March 14, 1935	Night Meeting, Dinner—Houston Club: Dr. Theodore A. Link of Alberta, Canada	Foothill Structures of Alberta, Canada. Also a moving picture—The Story of Oil at the Century of Progress.
May 2, 1935	W. B. Ferguson	Subdivisions of the Miocene Beds in Washington Co., Texas.

ROCKHOUNDS OF HOUSTON

May 9, 1935	Night Meeting, Assembly Room of Chamber of Commerce: Dr. Chester W. Washburn	Oil Becomes Heavier Throughout Geologic Time.
June 19, 1935	Night Meeting, Assembly Room of Chamber of Commerce: Conquest of Antarctica. Three reels of moving pictures taken by Byrd at the South Pole—presented by courtesy of Tide Water Associated Oil Company.	
June 27, 1935	Lynn W. Storm	An illustrated talk on the National Parks of the Southwest and Alaska.
July 11, 1935	Night Meeting, Grill Room, Houston Club (Dinner): Dr. H. V. Howe	The Ostracods of the Type Choctawhatchee Miocene of Florida.
July 18, 1935	Dr. E. H. Sellards	Structural Map of Texas.
July 25, 1935	Leonard J. Newman	Some Progress in Reflection Shooting.
August 8, 1935	James Atkinson	Progress of Aerial Photography and Development of Photographically Controlled Ownership. Maps.
August 15, 1935	J. C. Karcher	Electrical Logging.
August 29, 1935	H. John Eastman	Controlled Well Drilling, Domestic and Foreign.
September 12, 1935	Walter M. Pierson	Operation of the Houston Water Department.
September 19, 1935	Phillip F. Martyn	The Refugio Oil and Gas Field, Refugio County, Texas.

Program for 1935-1936

October 17, 1935	Wayne Jones	Report on the 9th Annual Field Conference of the Kansas Geological Society—The Geology of the Upper Mississippi Valley.
October 31, 1935	J. Brian Eby	Report on the Mexico City Convention with Notes on the Laredo-Mexico City Geological Cross-Section.
November 7, 1935	Donald C. Barton	Relationships of Cretaceous Oil of Texas and Louisiana.
November 14, 1935	F. B. Plummer	Oil Reservoirs.
November 21, 1935	M. T. Halbouty	High Island.

ROCKHOUNDS OF HOUSTON

December 5, 1935	J. Boyd Best	West Tuleta and Dircks Fields, Bee County.
December 7, 1935	E. H. Sellards and H. B. Stenzel	Subjects not recorded.
January 9, 1936	E. E. Rosaire	The Rate of Discovery of Oil Fields in the Gulf Coast.
January 16, 1936	Night Meeting, Public Library: Dr. R. J. Russell	The Deltas of the Mississippi River, a Geomorphological Study.
January 23, 1936	E. W. K. Andrau	Electric Log Correlations.
February 6, 1936	Dr. L. W. Blau	Black Magic in Geophysical Prospecting.
February 10, 1936	Special Night Meeting: A. Roger Denison	A talk and moving pictures of geology of Bryce and Zion Canyons, Utah.
September 3, 1936	L. W. Storm	Practical Uses of Surveys Made by the Schlumberger Well Survey Company.
September 10, 1936	K. D. Owen and David Hedley	Placedo Field, Victoria County, Texas.
September 17, 1936	Paul Weaver	Some Ideas Regarding Heaving Shale.
September 24, 1936	E. G. Thompson	Paluxy Fault Zone of Northeast Texas.

Program for 1936-1937

October 8, 1936	S. W. Lowman	A comparison of sub-surface laboratory methods of Mid-Continent and Gulf Coast.
October 15, 1936	J. W. Flude	Seismograph Field Practice.
October 20, 1936	Ralph D. Reed	Evolution of Coast Range Structure. (Dinner at the Houston Club.)
October 27, 1936	H. H. Farnham	Developments in the Drilling-Mud Field.
November 5, 1936	E. D. Wingfield	Mining of Sulphur in Gulf Coast Region (Motion Pictures).
November 12, 1936	Paul G. Crawford	Field Technique of the Magnetometer and Its Uses in Locating Serpentine Plugs.

ROCKHOUNDS OF HOUSTON

December 3, 1936	M. M. Kornfeld	Microscopic Methods in Localized Sub-surface Geology (Lantern Slides).
December 10, 1936	C. E. Manion	Notes on the Bosco Field of Acadia and St. Landry Parishes, La.
December 18, 1936	Special Meeting	Joint dinner with Houston Chapter A. I. M. E. complimenting George Otis Smith; Grill Room, Houston Club.
January 7, 1937	C. H. Ritz	Geomorphology of Gulf Coast Salt Dome Structures.
January 14, 1937	F. B. Plummer	Chittum Anticline of Maverick County.
January 21, 1937	Parker D. Trask	Means of Recognizing Source Beds.
January 28, 1937	H. B. Stenzel	Correlation of Claiborne from Northeast to Southwest Texas.
February 4, 1937	J. Leonard Davidson	Motion Pictures of Torsion-Balance Exploration in Borneo and Sumatra.
February 11, 1937		Stag Dinner, Grill Room of Houston Club, honoring past officers of Houston Geological Society.
February 18, 1937	E. B. Dana	Resume of the Geology and Native Life of Venezuela. Houston Public Library.
February 25, 1937	O. L. Brace	Review of Gulf Coast Development for 1936.
March 4, 1937	Dr. C. N. Gould	Big Bend National Park.
March 11, 1937	Dr. Hal P. Bybee	Changes in Facies in Some West Texas Formations.
March 25, 1937	J. Brian Eby and M. T. Halbouty	Spindletop Oil Field, Jefferson County, Texas.
April 1, 1937	Max Barnhauser	Geology of the Tepetate Field, Acadia Parish, Louisiana.
April 8, 1937	Donald C. Barton	Physiography of the Gulf Coast. (Business session regarding constitution.)
April 15, 1937	M. A. Hanna	A New Horizon in the Oligocene of Texas and Louisiana.
April 22, 1937	O. W. Van Dyke	Control of Heaving Shale with Silicate Mud.

ROCKHOUNDS OF HOUSTON

April 29, 1937	Ralph E. Taylor	The Water Insoluble Residue in Louisiana Salt Plugs.
May 6, 1937	Dr. Ionel I. Gardescu	Detail Sand Correlation by Use of Index Charts.
May 11, 1937	Henry Arnold	Consideration of the Function of Water in the Production of Oil.
May 15, 1937	No luncheon Thursday—	Visit to U. S. C. & G. S. Boat "Hydrographer," Galveston, Pier 14. Also informal dinner for officers of Hydrographer Saturday evening.
May 20, 1937	Merle C. Israelsky	Gulf Coast Markers in the Eocene of Marysville Buttes, California.
May 27, 1937	W. E. Pratt	Discovery Rates in Oil Finding.
June 3, 1937	Discussion on:	Recent Papers on Trends and Methods of Oil Finding.
June 10, 1937	R. A. Weingartner	Turtle Bay Field, Chambers County, Texas.
June 17, 1937	George S. Buchanan	Cheneyville Oil Field, Rapides Parish, Louisiana, and its Relation to the Areas of Mother Salt Deposition.
June 24, 1937	H. T. Richardson	The Goliad Formation of South Texas.
July 1, 1937	Paul Weaver	Heaving Shale Wells at Old Hackberry Dome and Their Relation to Oil Production.
July 8, 1937	George R. Pinkley	The Geology of McMullen County, Texas.
July 15, 1937	E. R. Smith	The Stratigraph and Its Uses.
September 2, 1937	F. X. Bostick	Geology of the Saxet Field, Nueces County, Texas.
September 16, 1937	Wayne Jones	The Cayuga Field, Anderson County, Texas.
September 23, 1937	Perry Olcott	Cost of Acquisition of Crude Oil Reserves.
September 30, 1937	Dr. E. H. Sellards	Some Chapters in the Geologic History of Texas. (Night meeting, dinner, Houston Club.)
October 7, 1937		Election of Officers for 1938.

ROCKHOUNDS OF HOUSTON

Program for 1937-1938

October 14, 1937	W. Armstrong Price	A Comparison of Gulf and Appalachian Geosynclines
October 21, 1937	H. B. Fuqua, Pres. AAPG	(Evening) Association Affairs.
November 4, 1937	J. Elmer Thomas	A report of the Seventeenth International Geological Congress and Petroleum Excursion held at Moscow.
November 11, 1937	J. Boyd Best	Lopez Field, Webb County.
November 12, 1937	Paul H. Crawford	Field Technique of the Magnetometer and its Use in Locating Serpentine Plugs.
December 7, 1937	F. B. Plummer	(Evening meeting—Library) Lower Carboniferous Rocks of the Llano Uplift.
December 23, 1937	Ralph Schilthuis	Connate Waters in Oil and Gas Sands.
January 6, 1938	Wallace Thompson	Geological Cross Sections of Texas.
January 13, 1938	Dr. J. Brian Eby	Relation of Petroleum Exploration and Discovery to Reserves.
January 20, 1938	Dean Metts	Geology of Roanoke Oil Field, Arcadia Parish, Louisiana.
January 27, 1938	John C. Miller	Oil Producing Zones of the Gulf Coast.
February 3, 1938	Roy T. Hazzard	Vicksburg of Louisiana and Mississippi.
February 10, 1938	Ronald K. DeFord	Night Meeting. The 17th International Geological Congress in the Soviet Union.
February 17, 1938	E. E. Rosaire	An Effect of Uplift in the Shallow Overlying Sediments.
February 24, 1938	C. I. Alexander	A North and South Cross Section of the Louisiana Gulf Coast.
March 21, 1938	Orval L. Brace	Oil Development in the Gulf Coast During 1937.
March 24, 1938	Samuel Turner	Ground Water Work in Texas.
April 7, 1938	Marcus A. Hanna Dr. W. Gravell	Subsurface Tertiary Zones of Correlation Through Mississippi, Alabama, and Florida.
April 14, 1938	Alexander Deussen	Future Discoveries.

ROCKHOUNDS OF HOUSTON

April 28, 1938	T. V. Moore	Behavior of Fluids in Reservoir.
May 2, 1938	E. J. Hamner	Amelia Field.
May 12, 1938	P. H. O'Bannon	Anahuac Field.
May 19, 1938	J. B. Garrett	The Hackberry Assemblage
May 26, 1938	C. H. Sample	Geology of the Lucas Field, Live Oak County, Texas.
June 2, 1938	W. Armstrong Price	Night Meeting—Library. Geology of the Rio Grande Delta.
June 9, 1938	Alexander Deussen Kenneth Dale Owen	Correlation of Surface and Sub-surface Formations in Two Typical Sections of the Gulf Coast.
June 16, 1938	W. E. Greenman	Geology of Pickett Ridge Oil Field Wharton County, Texas.
June 30, 1938	Dr. R. J. Gonzales	The Economic Conservation of Oil Reserves.
September 15, 1938	M. M. Kornfeld	Relation of Salt Dome Faulting to Oil Production.
September 22, 1938	Alfred Fenton	The Romance of Sulphur with the Texas Gulf Sulphur Company. (Colored Pictures and Sound).
September 29, 1938	Milton Williams	Infiltration of Water from Drilling Muds.

Program for 1938-1939

October 13, 1938	Leavitt Corning	Geology of DeWitt and Goliad Counties, Texas.
October 27, 1938	Cecil Hagen and M. E. Reasoner	Geology West Flank Jennings Field.
November 3, 1938	C. P. Parson	Squeezing Cement into Permeable Formations.
November 10, 1938	John C. Poole and Dave Hedley	Saxet Oil Field, Nueces County.
November 17, 1938	Herschel H. Cooper	Producing Zones in South Texas in Jackson and Older Formations.
November 22, 1938	M. T. Halbouty	Showed excellent geological motion pictures with sound lecture from the Harvard University Film Service: <ol style="list-style-type: none"> 1. The Earth's Rocky Crust 2. Wearing Away of the Land 3. The Work of Running Water. (Special Night Meeting, Houston Library)

ROCKHOUNDS OF HOUSTON

December 1, 1938	Prof. S. S. Goldich, Texas A. & M. Dept. of Geology	Influence of Weathering on the Source and Materials of Sedimen- tation.
December 15, 1938	Dr. W. F. Fullerton	Determination of Phase Relation Under Reservoir Conditions in Gas and Distillate Fields.
January 1, 1939	Jack Blalock Clarence Lockwood . . .	The Geologist as an Expert Wit- ness. Comments on News of Interest to the Oil Industry.
January 12, 1939	R. J. Metcalf	Deposition and Distribution of Lissie and Beaumont in the Gulf Coast.
January 19, 1939	John Todd	The Sparta-Wilcox Trend.
January 23, 1939	A. I. Levorsen	Some Frontiers of Petroleum Ge- ology. (Evening Meeting—Hous- ton Library).
January 26, 1939	M. Frank Reedy, Jr.	Correlation Zones of the Eocene of the Gulf Coast of Texas and Louisiana.
February 2, 1939	Wm. L. Horner	Core Analysis—Its Relation to Geologic Problems.
February 9, 1939	Michael T. Halbouty	Report of Study Groups. A Resume of the Study Group on Sedimentation.
February 16, 1939	E. Gardner Clapp	Afghanistan
February 23, 1939	Paul Weaver	Report on Study Groups. Resume in Geophysics. (Night Meeting)
March 2, 1939	F. V. L. Patten	Phase Equilibria in High Pressure Gas Reservoirs.
March 9, 1939	F. B. Plummer	Methods of Reducing Water in Wells Making Both Oil and Wa- ter by Means of Chemicals.
March 17, 1939	C. W. Sanders' Paper	Emba Salt Dome Region of the U. S. S. R. (Evening Meeting)— Houston Library).
March 30, 1939	Perry Olcott and O. L. Brace John Vetter	Report of District Representatives to Annual Convention. Resume of Study Group Conclu- sions on Permeability.

ROCKHOUNDS OF HOUSTON

April 6, 1939	E. E. McDermott	Concentrations of Hydrocarbons in the Earth. Subtitle: A Theory of the Origin and Accumulation of Oil and Gas as Arrived at from the Data of Soil Analysis.
April 15, 1939		Joint Meeting with Texas Academy of Science (Houston Library)
	Dr. J. Brian Eby . . .	Methods of Geophysical Exploration.
	Dr. Donald C. Barton .	Art of Reading Aerial Photographs.
	Dr. R. J. Gonzalez . .	Economic Aspects of Petroleum Industry.
	Dr. F. B. Plummer . .	Geology and Structure of Llano Uplift of Central Texas.
April 18, 1939	Phil Martyn	Summary of the Paleogeology Study Group on the Middle Catahoula and Associated Formations.
	Merle Israelsky *	Remarks on the Frio. (Night Meeting—Houston Library).
April 27, 1939	P. C. Dixon and E. V. Foran	Condensate Wells, Production and Recycling.
May 4, 1939	Leslie Boling	Report of Study Group on Porosity.
May 11, 1939	W. A. Kirkland, V.-P. First National Bank	Oil Loans.
May 18, 1939	Jerry Smith	Report of Study Group on Electrical Logging of Wells (Night Meeting).
May 24, 1939		Evaluation Study Group Discussed: Uses of Graphic Methods in Evaluation. (Night Meeting—Houston Library).
May 25, 1939	R. C. Bowles	The Geology of the Benavides Field.
June 1, 1939	Ralph E. Taylor	The Origin of the Caprock of Louisiana Salt Domes.
June 8, 1939	S. L. Mason and W. W. Patrick	Datum Planes of Gulf Coast.
June 15, 1939	J. Daviss Collett, Jr., Consulting Engineer	Some Uses of Bottom Hole Pressure Data.
June 22, 1939	Donald W. Gravell and Marcus A. Hanna	Some New Species of Larger Foraminifera from the Claiborne of Mississippi.
	J. B. Garrett	Some Middle Tertiary Smaller Foraminifera from Subsurface of Jefferson County.

ROCKHOUNDS OF HOUSTON

June 29, 1939	Ionel I. Gardescu	Miocene Production and Recovery in the West Columbia Field.
September 14, 1939	F. W. Rolshausen	A Few Common Fossil Horizontes of the Gulf Coast.
September 21, 1939	Alva C. Ellisor	The Subsurface Miocene of Louisiana (Night Meeting—Houston Library).
September 28, 1939	Henry Emmett Gross A. & M. College	Decline Curve Analysis.

Program for 1939-1940

	C. D. Lockwood	Weekly Talks: "Highlights of the Oil News."
October 12, 1939	R. J. Gonzalez	Economic and Statistical Aspects of the Petroleum Industry.
October 19, 1939	Ray L. Dudley	The Technical Trail of an Article in the Oil Weekly.
October 26, 1939	F. B. Plummer	The Geology of Santa Domingo.
November 2, 1939	B. T. McNeil	Marketing of Crude Oil in Bulk Cargoes for Shipment, Coastwise and for Export.
November 9, 1939	J. M. Clayton	Producing Formations Above the Jackson in Southwest Texas.
November 15, 1939	M. M. Kornfeld	The Relation of the Hackberry Zone to Oil and Gas in the Gulf Coast.
December 7, 1939	W. A. Reiter (Gave Review)	Microscopic Fossils in Crude Oil by Saunders.
December 14, 1939	Dr. M. M. Slotnick	Gravimetric and Seismic Methods in Exploratory Geophysics.
December 21, 1939	Christmas Program	Lamar Hotel.
December 28, 1939	Carroll Wegemann (Regional Geologist of National Park Service)	Little Known Canyons of Green and Yampa Rivers in Colorado.
January 4, 1940	W. L. Wilgus	Geologic Problems of the Southwest Flank of the Batson Dome.
January 11, 1940	R. C. Ward	Illinois Oil Basin.
January 18, 1940	Dr. H. A. Straley (Baylor University)	Geology of the Atlantic Seaboard.
January 25, 1940	Dr. E. E. Rosaire	Soil Analysis and Hydrocarbon Prospecting.

ROCKHOUNDS OF HOUSTON

February 1, 1940	Dr. E. H. Sellards	Excavation of Meteor Craters and Other Recent Ecavations in Texas.
February 8, 1940	Henry Ley (President A.A.P.G.)	Appraisal and Evaluation Back-ground.
February 15, 1940	W. E. Wrather	Minerals and World Politics.
February 21, 1940	Francis B. Shepard	Sedimentary Environment Off the California Coast.
February 29, 1940	C. P. Chisholm	Scouting Profession.
March 7, 1940	E. Floyd Miller	Cotton Valley Field, Webster Parish, Louisiana.
March 14, 1940	Fred W. Bates	Eola Field of Avoyelles Parish, Louisiana.
March 21, 1940	John D. Todd	Geological Reconnaissance in Mississippi.
March 28, 1940	Ed Owen, Secretary A. A. P. G. Henry Ley, President A. A. P. G.	Association Affairs. Talk.
April 4, 1940	K. D. Owen and J. C. Poole	Keeran and East Placedo and Heyser Fields of Victoria and Calhoun Counties, Texas.
April 18, 1940	Michael T. Halbouty Dr. J. Brian Eby	Geology of Hitchcock Oil Field, Galveston County, Texas. Brief Report on the 25th Annual Convention of the A. A. P. G. at Chicago.
April 25, 1940	Dr. J. A. Culbertson	Downdip Wilcox of Coastal Texas and Louisiana.
May 2, 1940	Frank G. Evans	Photo-geologic Interpretation of Part of the Texas Gulf Coast.
May 9, 1940	F. W. Mueller (Paper jointly prepared with Eugene Earl)	The Geology of the Sam Fordyce Oil Field of Starr and Hidalgo Counties, Texas.
May 17, 1940		Student Award Program.
May 23, 1940	Paul Weaver	Recent Salt Developments in Northern Louisiana, Arkansas and Mississippi.
June 6, 1940	W. N. Cogen	Comparison of Heavy Mineral Zones with Faunal Horizons in Louisiana Gulf Coast Cenezoic Sediments.

ROCKHOUNDS OF HOUSTON

June 13, 1940	C. M. Langford	Some Factors in the Allocating of Production Between Fields.
June 20, 1940	M. C. Leverett	Behavior of Fluids in Sand with Particular Emphasis on the Roll of Capillarity.
June 27, 1940	C. D. Lockwood	The Petroleum Industry and the War Situation.
September 12, 1940	W. A. Reiter	Recent Research on the Origin of Petroleum.
September 19, 1940	W. B. Heroy	Recent Developments in the European Oil Situation.
September 26, 1940	J. A. Wheeler and Castle Harvey	The Report of Subsurface Wilcox Study Group and Discussion of Sections.
October 3, 1940	John Huff, Jr. and Merle Bowsky	Problems in Logging and Perforating deep horizons.

Program for 1940-1941

	C. D. Lockwood	Weekly Talks on "Highlights of the Oil News."
October 10, 1940	Doris Malkin and Dorothy Jung	Marine Overlap and its Relation to Oil Accumulation.
October 17, 1940	James L. Gartner	Gamma Ray Well Logging.
October 24, 1940	Col. E. O. Thompson	The Application of the Market Demand Law in Proration of Oil in Relation to Waste in Texas.
October 31, 1940	C. L. Clausel	The B. & R. Side Wall Wire Line Core Barrel.
November 7, 1940	Michael T. Halbouty	Oil and Gas Stratigraphic Reservoir in the University Oil Field, East Baton Rouge Parish, Louisiana.
November 14, 1940	A. H. Wadsworth Dr. Ionel I. Gardescu	A Study of the Colorado River Delta of Texas. Discussed the Recent Rumanian Earthquake.
November 21, 1940	Robert H. Robie	The Wilcox of Southwest Texas.
December 5, 1940	Dr. E. Berl	The Role of Carbohydrates in the Formation of Bituminous Coals, Asphalts, Oils and Natural Gas.
December 12, 1940	Dr. L. Horwitz	Geochemical Well Logging.

ROCKHOUNDS OF HOUSTON

December 19, 1940	Christmas Party	
December 31, 1940	Special Meeting	Sam Houston Room of Rice Hotel. Dr. T. Wayland Vaughan was special guest. Discussion on "Bottom Deposits and Associated Organisms in the Gulf of Mexico," by: Marcus Hanna, J. B. Garrett, M. C. Israelsky, S. W. Lowman, and F. W. Rolshausen.
January 9, 1941	Dr. E. E. Rosaire	An Analysis of the Refraction Collapse of 1930.
January 16, 1941	Judson Swearingen	The Comparison of Laboratory Estimates of Actual Recycling Recoveries.
January 23, 1941	Dr. H. B. Stenzel	Surface Relations of the Carrizo Sand.
January 30, 1941	Fred E. Romberg	Quantitative Introduction to Gravity Prospecting.
February 6, 1941	Paul Weaver	Presented Exhibits for discussion and comment for 1941 A.A.P.G. Meeting.
February 13, 1941	R. H. Fash	New Methods for Soil Analysis.
February 20, 1941	Sam E. Rogers	"Around the World in an Hour"—Movies.
February 27, 1941	Warren Weeks	The Geology of the Shuler Field, Arkansas, and Relationship to General Area.
March 6, 1941	Joe Wilson	The Geology of the South Cotton Lake Field, Chambers County.
March 13, 1941	Phil Martyn and C. H. Sample	Oligocene Stratigraphy of East White Point Field, San Patricio County, Texas.
March 20, 1941	S. Russell Casey and Ralph Cantrell	The Davis Sand Lens in the Hardin Field, Liberty County, Texas.
March 27, 1941	John Vetter Wallace Thompson Alexander Deussen	Resume of Program for A.A.P.G. Convention.
April 10, 1941	Watson Caldwell	The Geology of the West Beaumont Field, Jefferson County.
April 17, 1941	Fred M. Bullard	Heavy Minerals of the Texas Gulf Coast.

ROCKHOUNDS OF HOUSTON

April 24, 1941	Dan F. Elam	Fluid Level Measurements Applied to Reservoir Studies.
May 1, 1941	Carl B. Richardson	A Comparative Study of the Origin and Distribution of the Gulf Coast Tertiary Sediments.
May 8, 1941	C. B. Roach	A Subsurface Study of the Jennings Dome, Acadia Parish, Louisiana.
May 16, 1941		Second Annual Texas A. & M. Student Award Meeting.
May 22, 1941	H. G. Wilde	Why Crude Oils Differ in Value.
May 29, 1941	W. J. Sutton	Development and Use of the Kirby Side Wall Coring Device.
June 5, 1941		Hughes Tool Company presented an Industrial Motion Picture in Sound and Color, presenting aerial views of oil fields around Houston.
June 18, 1941	E. O. Buck	Exploration of the Function of the Office of Coordinator.
June 25, 1941	John C. Miller	Well Spacing and Production Interference in the West Columbia Field, Brazoria County, Texas.

Program for 1941-1942

October 9, 1941		Evening Meeting in Beaumont— Buffet Supper at Beaumont Country Club.
	Paul Weaver Brian Eby Michael T. Halbouty	Gave interesting talks on Salt Domes with special reference to Spindletop.
October 16, 1941	Jack Kinley of M. M. Kinley Company	Showed moving pictures of the various phases of capping and killing wild wells.
October 23, 1941	Dr. E. E. Rosaire	Discussion of Recent Prospecting Statistics.
	C. D. Lockwood	Gave a resume of the priorities, proration, and other petroleum problems brought out in the recent Interstate Compact Commission, A.I.M.E. and A.P.I. meetings.

ROCKHOUNDS OF HOUSTON

October 29, 1941	A. S. Parks	The General Principles Effecting Recycling and Repressuring Operations. (Evening Meeting—Houston Public Library).
	Joe Tennant	The General Problems of Installations of Recycling and Repressuring Plants.
November 6, 1941	Michael T. Halbouty	The Geology and Economic Significance of Flank Production on the Jennings Dome, Arcadia Parish, Louisiana.
November 13, 1941	W. L. Horner	Productivity, Measurable Reservoir Characteristics, and Well Spacing.
November 20, 1941	Dr. W. L. Craig Prof. of Chemistry Texas Tech. College	The Spectrograph as a Possible Tool for the Correlation of Strata.
December 4, 1941	Frank J. Gardner	Proration Trends for the Future of Texas.
December 11, 1941	Dr. Herman H. Kaveler	Very Elementary Discussion of Gas Condensate Behavior.
December 17, 1941		Joint Meeting of members of Houston Geological Society, the A.I.M.E. and A.P.I. held in ball-room of Lamar Hotel to discuss plans for joint civilian defense program.
January 8, 1942	Sidney Judson	Progress Report on the Participation of the Society in Civilian Defense.
	Dan E. Boone	Halliburton-Kinley Side Wall Hole Caliber.
January 15, 1942	Gordon Heid	Moving Pictures of the East Indies, including scenes on the Islands of Java, Madiera, Ambon, and New Guinea.
	C. D. Lockwood	Resume of the Oil News.
January 22, 1942	Earl B. Noble	Showed Movies in technicolor of his recent trip to Costa Rica and Guatemala.
January 29, 1942	I. W. Alcorn	The Accomplishments and Limitations of Slim Hole Drilling as a Method of Exploration.
	C. D. Lockwood	Highlights of the Oil News.

ROCKHOUNDS OF HOUSTON

February 5, 1942	Paul Weaver	The Formation of Salt Deposits in General and of Potash Salts in Particular from Sea Water.
	C. D. Lockwood	Highlights of the Oil News.
February 12, 1942	G. E. Archie	The Electrical Resistivity Log as an Aid in Determining Some Reservoir Characteristics.
February 19, 1942	Antun E. Cuthrell	Operating Problems in Argentina.
February 26, 1942	J. Brian Eby and T. I. Harkins	Geophysical History of Darrow Dome, Ascension Parish, Louisiana.
March 5, 1942	Open Forum	Application of Geology and Geophysics to War and Post-war Problems of the Petroleum Industry—C. D. Lockwood.
March 12, 1942	Paul Weaver and Sidney Judson	General Plans and Information Required by the Recently Appointed Subcommittee on Exploration of District No. 3 Advisory Production Committee to O.P.C.
March 19, 1942	W. F. Guyton, U. S. G. S.	The Results of Pumping Tests in the Carrizo Sand in the Lufkin Area.
	George Sawtelle	Summary of the Work of his Committee on Civilian Defense.
March 26, 1942	D. D. Utterbach of Texas Company, New Orleans	Studies of Asphalt Bearing Surface Outcrops in Relation to Porosity and Origin of the Bituminous Materials.
March 30, 1942	Prof. Walter H. Bucher Prof. of Geology at Columbia University	Mechanics of Crystal Deformation. (Special Meeting—University of Houston).
April 9, 1942	Earl Brownhill	A General Discussion of Drilling Mud Problems.
April 16, 1942	Perry Olcott, George Buchanan, John Ivy, and Paul Weaver	Variations of Types of Crude Oils with Depth in Different Formations in the Gulf Coast.
April 30, 1942	E. V. McCollum	The Gravity Expression of the Hatchetigbee Anticline and the Jackson Fault Area of Alabama.
May 7, 1942	Dave P. Carlton	Moving Pictures of the Dutch East Indies.

ROCKHOUNDS OF HOUSTON

May 14, 1942	Clark Millison	A Summary of Present Development in Illinois.
	Fritz Aurin	Service Problems Confronting Local Members.
May 21, 1942	E. I. Thompson	Historical Development of Oil Royalties in the Field of High Grade Investments.
May 28, 1942	N. A. Rose	The Ground Water Resources of the Houston District.
June 4, 1942	Paul D. Torrey	A Review of Secondary Recovery Methods in the United States.
June 11, 1942	James L. Shepherd, Jr.	Occupational Deferments Under the Selective Service Act.
June 18, 1942		Donald C. Barton Memorial Meeting (Special Evening Meeting—Public Library.)
September 17, 1942	John S. Ivy	Tinsley Field, Mississippi.
September 24, 1942	Lt. Robert S. Dietz of Ellington Field	Illustrated talk, "A Geological Investigation of the Sea Floor off the Coast of California." Bernie Laskey, Chairman of the Houston Geological Society Military Committee, read a report of his committee.

Program for 1942-1943

October 8, 1942	Dr. Roy R. Morse	Geological Highlights of China and Their Relation to War.
October 22, 1942	Dr. Charles Lawrence Baker	Geosynclinal Thickness.
November 5, 1942	Fred P. Shayes	Historical Development of the Agua Dulce Field.
November 13, 1942	Dr. Kendall Born	Pre-Cretaceous in Northeast Part of Mississippi Embayment. (Special Night Meeting—Public Library).
November 19, 1942	Dr. Claude E. Zobell (Distinguished Lecture Tour)	Importance of Bacteria as Geological Agents.
December 4, 1942	Dr. Carey Croneis	Geological Warfare.

ROCKHOUNDS OF HOUSTON

December 17, 1942	A. M. Lloyd	The Jurassic of Northern Louisiana and Southern Arkansas.
January 7, 1943	L. P. Teas	Talk with Moving Pictures on "South American Observations."
January 21, 1943	Fred M. Bates	The Anse LaButte Dome, Louisiana.
February 2, 1943	Dr. Lewis B. Kellum (Distinguished Lecture Tour)	The Geological History of North Central Mexico and its Bearing on Petroleum Exploration.
February 22, 1943	Carl B. Richardson	Proposed Chart Showing Stratigraphic Nomenclature for the Houston District.
March 4, 1943	Dr. L. L. Nettleton (Distinguished Lecture Tour)	Effect of Competent Beds on Salt Dome Formation.
March 18, 1943	J. M. Bugbee	The Geologic Structure of the Gulf Coast Province.
April 1, 1943	Paul Weaver	The Geophysicist as a Forecaster.
April 15, 1943	Dr. John L. Rich	Problems in South American Geology as Suggested by an Areal Traverse.
April 22, 1943	Dr. Ralph M. Imlay	The Jurassic Formation of the Gulf Coast.
May 6, 1943	J. L. Mathieu	The S. P. (Self Potential) Dipmeter.
May 20, 1943	F. Julius Fohs	Some Notes on the Middle East.
June 3, 1943	Dr. Marcus A. Hanna	Some Theories on the Geology of Salt Domes.
September 16, 1943	Dr. J. Brian Eby	The Oil and Gas Fields of Jackson County, Texas.
September 20, 1943	Dr. J. B. Reeside, Jr.	Some Features of the Sedimentation on the Upper Cretaceous of the Western Interior.
September 30, 1943	J. Elmer Thomas	Moving Pictures of the Italian Oil Fields and the Geology and Geography of the War Zone in Italy.

ROCKHOUNDS OF HOUSTON

Program for 1943-1944

October 8, 1943	Dr. W. Taylor Thom, Jr. (D. L. T.)	The Structural Evaluation of the Big Horn Basin Region.
October 21, 1943	R. C. Craze	Development and Control of Oil Reservoirs.
November 4, 1943	A. J. Bauernschmidt	West Ranch Field, Jackson County, Texas.
November 18, 1943	F. B. Plummer	Chemistry of Oil Brines and Oil Field Waters.
November 29, 1943	Dr. Richard J. Russell (D. L. T.)	Quaternary Delta Succession in the Low Mississippi Valley.
December 13, 1943	Dr. Carey Croneis	Science in the Future.
December 17, 1943	Dr. Fred M. Bullard (D. L. T.)	The New Volcano of Paricutin.
January 6, 1944	Warren Baker, Editor of The Oil Weekly	A Preview of 1944
	Alva C. Ellisor	The Anahuac Formation
January 17, 1944	Dr. Sam H. Knight (D. L. T.)	Physical Evolution of the Rocky Mountains.
February 3, 1944	Dr. C. J. Hesse, Texas A. & M. College	Vertebrate Paleontology of Texas.
February 17, 1944	C. F. Shepherd and G. I. Atwater	Geologic Application of Drilling Time Data.
February 22, 1944	Dr. George S. Hume, Geologist for the Oil Comptroller of Canada (D. L. T.)	Petroleum Developments and Prospects in Western Canada.
March 2, 1944	Dr. M. King Hubbert	The Strength of the Earth.
March 14, 1944	Dr. Marshall Kay (Columbia University) (D. L. T.)	Geosynclines in Continental Development.
March 31, 1944	Dr. Fred M. Bullard	A Trip to Paracutin—Mexico's New Volcano (Special Meeting with Salesmanship Club—San Jacinto High School.)
April 6, 1944	Dr. Harold N. Fisk	Geologic History of the Alluvial Valley of the Lower Mississippi River.
April 13, 1944	John Emery Adams (D. L. T.)	Depth Control of Sedimentation in the Permian Basin.

ROCKHOUNDS OF HOUSTON

April 20, 1944	John L. P. Campbell	Radioactivity Well Logging.
May 4, 1944	S. G. Gray and M. H. Steig	The Erath Field, Vermilion Parish, Louisiana.
May 18, 1944	Dr. Gayle Scott (D. L. T.)	Stratigraphic Correlations and Depositional Environments Indicated by Ammonoid Occurrences in the Pennsylvania Sediments of Texas.
May 19, 1944	Mr. & Mrs. P. L. Applin	Regional Subsurface Stratigraphy and Structure of Florida and Southern Georgia.
June 1, 1944	Dr. J. Brian Eby	Germany's Oil.
June 13, 1944	R. T. Hazzard and B. W. Blanpied	The Woodbine Problem and Correlations in Texas, Louisiana and Mississippi.
June 15, 1944	Harold Vance	Engineering Study of the Lafitte Oil Field, Louisiana.
August 17, 1944	Special Meeting	Restricted Army-Navy sound movies made available through the P.A.W. for use by the oil industry. 1. "Battle of Britain"—The Luftwaffe at its peak. 2. "This Is Guadalcanal." Marine Landings, Battles and Occupation. 3. "All Americans." Air Combat and Missions in the Battle Area.
September 21, 1944	Olin G. Bell	Operational Work of Photo Reconnaissance and Photo Mapping Squadrons.
October 5, 1944	C. R. Coneway	"Oil for Tomorrow." Sound and color motion picture.

Program for 1944-1945

October 18, 1944	Watson H. Monroe U.S.G.S. (D.L.T.)	The New Geologic Map of Mississippi and Related Problems.
October 19, 1944	Park J. Jones	Cycling Reservoir Gas.
November 3, 1944		Restricted Combat War Pictures from Different Theatres of Operation. Films furnished through courtesy of Ellington Field Officers.
November 15, 1944	Dr. Judson L. Anderson (D. L. T.)	Petroleum Geology of Columbia, South America.

ROCKHOUNDS OF HOUSTON

December 7, 1944	Ira H. Cram N. A. Rose of U.S.G.S.	Association Affairs. The Relation of the Phenominal Rise in Waterhead to a Defective Gas Well in Harris County, Texas.
December 14, 1944	Dr. Kirk Bryan Harvard University (D. L. T.)	The Geological Antiquity of Man in America.
January 4, 1945	Dr. R. J. Gonzalez	War Record of the Petroleum Industry in Texas.
January 10, 1945	Dr. Chas. E. Weaver Univ. of Washington (D. L. T.)	Geology of Oregon and Washington and its Relation to the Possible Occurrence of Oil and Gas. (Evening Meeting at Houston Public Library).
January 18, 1945	W. P. Schambra Dow Chemical Company	The Dow Magnesium Process at Freeport, Texas.
February 1, 1945	S. W. Lowman	Biolithic Classification of Sedimentary Rocks; its Possible Value in Future Exploration.
February 15, 1945	Dr. W. Armstrong Price	Correlation Between Soils and Physiographic Units on Pleistocene Plains.
February 22, 1945	Dr. W. C. Krumbein (D. L. T.)	Modern Sedimentation and the Search for Petroleum.
March 1, 1945	W. E. Wallace	Structure of South Louisiana Deep Seated Salt Domes.
March 15, 1945	Hubert Guyod	Recent Trends in Electrical Log Interpretations.
April 5, 1945	F. B. Plummer, Bureau of Economic Geology	Future Oil Supplies After the Depletion of our Present Reserves.
April 27, 1945	W. R. Canada	A Progress Report by the Geologic Names and Correlation Committee of the South Louisiana Geological Society. (Special Meeting—Public Library).
May 3, 1945	Dr. E. H. Sellards, Bureau of Economic Geology	Mineral Resources of Texas.
May 17, 1945	Joe Hornberger	Stratigraphic Study of Portions of Jackson and Wharton Counties, Texas.
	M. G. Cheney, Pres. A. A. P. G.	Discussed Association Affairs.

ROCKHOUNDS OF HOUSTON

June 7, 1945	Paul Weaver	Future of the Geologists in the Petroleum Industry.
September 20, 1945	Sam L. Olson	Drilling for Industry

Program for 1945-1946

October 8, 1945	Warren Baker	Trends in the Oil Business (Election).
October 22, 1945	R. L. Denham	The Structure and Stratigraphy of Bayou Sale Field, St. Mary Parish, Louisiana.
October 31, 1945	Charles B. Hunt	Geology Applied to Military Intelligence (Special Night Meeting)
November 5, 1945	Dr. John T. Lonsdale	Post War Program for the Bureau of Economic Geology.
November 16, 1945	Dr. Bailey Willis (Distinguished Lecture Tour)	Terrestrial Dynamics.
November 21, 1945	Dr. Chester Longwell (D. L. T.)	Geology of the Basin Ranges: Revelations and Problems.
November 26, 1945	Dr. M. King Hubbert	Geological Inventions.
December 7, 1945		Ranch Party Dance at The Old Hitching Rack, Addicks, Texas.
December 10, 1945	E. B. Parmelee	Midway-Wilcox Relationship in the Bauxite District of Arkansas.
December 21, 1945	Dr. J. Brian Eby	The Present Oil Situation in Northern Europe. (Special Night Meeting).
January 14, 1946	Dr. Parke A. Dickey (D. L. T.)	Geology and Secondary Recovery of Oil. (Special Night Meeting).
January 28, 1946	P. H. O'Bannon	The Geology of the Katy Field, Waller and Harris Counties, Texas.
February 11, 1946	Harold Hensley	Engineering and Cycling Aspects of the Katy Field.
February 8, 1946	A. R. McTee	Gave an account of his visit to the U. S. Navy's Petroleum Reserve No. 3, Point Barrow Area, Alaska. He presented rare motion pictures in color. (Special Night Meeting).
February 25, 1946	W. J. Gillingham	Electrical Well Logging in Mississippi.

ROCKHOUNDS OF HOUSTON

February 27, 1946	Dr. Harold Scott (D. L. T.)	The Upper Paleozoic History of the Rocky Mountains and Adjacent Great Plains.
March 11, 1946	Dr. W. Armstrong Price	Quaternary and Recent Evidences of Diastrophism in the Gulf Coastal Area.
March 25, 1946	M. M. Sheets	Diastrophism During Historic Time in the Gulf Coastal Area.
March 28, 1946	Dr. T. S. Oakwood (D. L. T.)	Chemical Aspects of the Origin of Petroleum.
April 9, 1946	Max Bornhauser	Marine Sedimentary Cycles of the Tertiary in the Mississippi Embayment.
April 26-27, 1946		Review Conference.
May 6, 1946		Student Awards Dinner.
May 13, 1946	Dr. Horace G. Richards (D. L. T.)	Subsurface Stratigraphy of the Southeastern Atlantic Coastal Plain.
May 27, 1946	Earl B. Noble	Discussed Association Matters, also gave personal impressions of "Geological Exploration in Paraguay."
June 10, 1946	George E. Cannon	Problems Encountered in Drilling Abnormal Pressure Formations.
June 14, 1946		Dance—Old Hitching Rack, Addicks, Texas.

REFERENCES

1. Ben C. Belt and Paul Weaver: Memorial of Lovic P. Garrett. A.A.P.G. Bulletin Vol. 28, No. 7, 1944.
2. Frank R. Clark: Biography of Sidney Powers. A.A.P.G. Bulletin, Vol. 17, No. 3, 1933.
3. Charles J. Deegan and Lewis McNaughton: E. DeGolyer, Honorary Member. A.A.P.G. Bulletin, Vol 29, No. 3, 1945.
4. E. DeGolyer: Memorial of Sidney Powers. Proceedings of the Geological Society of America, 1933.
5. E. DeGolyer: Notes on the Early History of Applied Geophysics in the Petroleum Industry, Journal of S.P.G., Vol. VI, No. I, July 1935.
6. E. DeGolyer: The Development of the Art of Prospecting. 1940.
7. E. DeGolyer: Wallace E. Pratt, First Sidney Powers Medalist, An Appreciation. A.A.P.G. Bulletin, Vol. 29, No. 5, 1945.
8. A. Roger Denison: Presentation of First Sidney Powers Memorial Medal Award. A.A.P.G. Vol. 29, No. 5, 1945.
9. Alexander Deussen: Developments in the Gulf Coast Country in 1917. A.A.P.G. Bulletin, Vol. 2, 1918.
10. Alexander Deussen: Memorial of Lee Hager. A.A.P.G. Bulletin Vol. 28, No. 11, 1944.
11. J. F. Gallie: History of the Society of Exploration Geophysicists. Geophysics, Vol. 9, No. 2, 1944.
12. Gilbert D. Harris: Oil in Louisiana, A Report on the Geology of Louisiana. Geological Survey of Louisiana, 1902.
13. Gilbert D. Harris: Rock Salt. Bulletin No. 7, Geological Survey of Louisiana, 1908.
14. T. A. Jaggar: Volcanoes Declare War. 1945.
15. Sidney A. Judson, P. C. Murphy, and R. A. Stamey: Overhanging Cap Rock and Salt at Barbers Hill, Chambers County, Texas. A.A.P.G. Bulletin Vol. 16, No. 5, 1932.
16. Frank E. Kendrick: Memorial of William Kennedy. A.A.P.G. Bulletin, Vol. 10, No. 9, 1926.
17. C. W. Hayes and William Kennedy: Oil Fields of the Louisiana Gulf Coastal Plain. U.S.G.S. Bulletin No. 212, 1903.
18. Isaac F. Marcossou: The Black Golconda. 1924.
19. George C. Matson: Gas Prospects South and Southeast of Dallas. U.S.G.S. Bulletin 629, 1916.
20. Sidney A. Powers: History of the American Association of Petroleum Geologists. A.A.P.G. Bulletin, Vol. 13, No. 2, 1929.

ROCKHOUNDS OF HOUSTON

21. Wallace E. Pratt: Memorial of Donald C. Barton. Proceedings of the G. S. A., 1939.
22. Wallace E. Pratt: Memorial of Donald C. Barton. A.A.P.G. Bulletin, Vol. 23, No. 12, 1939.
23. Wallace E. Pratt: Geology Is a Way of Life. A.A.P.G. Bulletin, Vol. 29, No. 5, 1945.
24. F. R. Simonds: Memorial of E. T. Dumble. Bulletin of G. S. A. Vol. 39, 1928.
25. John R. Suman: Memorial of Edwin Theodore Dumble. A.A.P.G. Bulletin, Vol. 11, No. 4, 1927.
26. Samuel Tait, Jr.: The Wildcatters. 1946.
27. J. Elmer Thomas: Origin and Growth of the American Association of Petroleum Geologists. Oil and Gas Journal, April 11, 1940.
28. J. A. Udden: Suggestion of a New Method of Making Underground Observations. A.A.P.G. Bulletin, Vol. 4, No. 1, 1920.
29. C. A. Warner: Texas Oil and Gas Since 1543. 1939.
30. W. E. Wrather: Memorial of William Kennedy. Bulletin of G.S.A., Vol. 39, 1928.