



Mississippi Geological Society

QUARTERLY NEWS BULLETIN

VOLUME IV

SEPTEMBER, 1957

NUMBER 4

Presidents Report

I wish to take this opportunity to express my sincere appreciation to the Society for bestowing upon me the honor of serving as your president. It shall be the aim of this administration to stimulate greater interest in society activities, both socially and professionally among the members.

The Executive Committee has agreed to have a social hour prior to two of the scheduled dinner meetings.

The entertainment committee is planning an outing on September 19, at the Colonial Country Club. The Executive Committee has agreed to donate the sum of \$125.00 towards this entertainment. We urge your cooperation and attendance. Whether or not this will become an annual event will be determined in a large measure by the interest which you show in this initial outing.

The Wilcox field trip committee, under Harold Baker as its chairman, has announced that it plans to repeat the Mississippi Geological Society Tenth Field Trip which was held in 1953. This should be of interest to the new members as well as the members who attended the original field trip.

Mr. W. J. Nugent, program chairman, has been given approval by the executive committee to defray the expenses, if necessary, of prospective speakers. This should enable him to bring before us able men who would not otherwise be in position to accept an engagement.

The Mississippi Geological Society, by unanimous approval of your executive committee, has extended an invitation to the G.C.A.G.S. to hold its 1960 convention at Biloxi, Mississippi. This invitation was accepted by the G.C.A.G.S.

Emil W. Monsour

G. C. A. G. S. Convention To Be Held

The seventh annual meeting of the Gulf Coast Association of Geological Societies will be held in New Orleans November 6, 7, and 8. An interesting and varied program has been arranged through the cooperation of the member societies and the Gulf Coast Section of the S. E. P. M. Featured are two symposia, one concerning Frio production in the Lower Gulf Coast, and the other devoted to the Edwards (Fredericksburg) of South Texas. Other papers of interest will be presented including "Geology and Unitization of Soso Field, Mississippi" by Max Newsom of Gulf Oil Corp. The S. E. P. M. will have at least one separate session.

An attractive and varied entertainment program has been prepared with a cocktail party for the members and wives on the 6th, a French Quarter Field trip on the 7th and a dance on the 8th. The ladies will be entertained by a welcoming brunch on Wednesday, a tour of the Vieux Carre on Thursday morning, a tea and sherry party on Thursday afternoon, and a luncheon and fashion show on Friday.

The registration fee is \$10.00, with checks made payable to the Gulf Coast Association of Geological Societies. Hotel reservations should be made before October 15, if you wish to stay at the hotels reserved by the G. C. A. G. S., which are the Jung, Roosevelt, Monteleone, St. Charles, New Orleans, De Soto, La Salle, and Bonchartrain. The reservations can be made through:

Housing Committee, G.C.A.G.S.
433 The California Company Building
New Orleans, Louisiana

First Meeting

The first meeting of the Mississippi Geological Society is tentatively scheduled for October 16. The speaker for this meeting will be Max Newsom of Gulf, who will present his paper "Geology and Unitization of Soso Field." The time and place of the meeting have not been decided.

The Society has plans to bring well-known speakers to the meetings for this year. Some of these who are scheduled are Dr. Tji H. van Andel, of Scripps Institute of Oceanography, who will present a paper on "Recent Sediments in the Gulf of Mexico"; Warren O. Thompson, Professor of Geology, University of Colorado; A. I. Levorsen, well-known consultant of Tulsa and S. K. Runcorn, Professor of Physics, Kings College, Newcastle-on-Tyne, England.

Fall Field Trip

The Mississippi Geological Society announces its annual fall field trip to be conducted October 3, 4, and 5, 1957. This trip will be a supplementary trip to the Mississippi Geological Society Tenth Field Trip which was held in 1953. The trip will include outcrops of the Claiborne, Wilcox, Midway, Selma and Eutaw groups in West Central Alabama. Emphasis will be on the Wilcox and Midway exposures.

Field leaders for this trip will be Messrs. P. E. LaMoreaux, U. S. Geological Survey, Lyman Toulmin of Florida State University, and E. H. Rainwater of Shell Oil Company. All of these men have done extensive work throughout the area of the trip, and we are indeed fortunate in being able to secure them as field leaders.

The trip will be conducted exclusively by special air conditioned buses. The buses will depart from the Continental Trailways Terminal, 201 East Pascagoula Street, Jackson, Mississippi, at 9:30 a.m., October 3, 1957. Final registration will be held at the Terminal beginning at 8:00 a.m., October 3. Those so desiring may begin the trip in Montgomery, Alabama, and complete final registration, beginning at 4:00 p.m., October 3, in the Jefferson Davis Hotel. The buses will depart from the Jefferson Davis Hotel at 8:00 a.m., October 4, 1957. A bus will terminate in Montgomery for those who desire to return to Montgomery at the conclusion of the trip.

The fee for the trip will be \$25 which includes transportation, guide book road log, a cocktail party and banquet the night of October 3, box lunch for October 4, and a fish fry — beer party on the Tombigbee River on October 5. For persons who may already have the guide book, the fee is \$21. A \$10 deposit must be made prior to September 25 to hold reservations. This deposit should be sent to Mr. Raymond Frisby, The Ohio Oil Company, 770 Milner Bldg., Jackson, Mississippi.

Hotel reservations should be made directly to the Jefferson Davis Hotel, Montgomery, Alabama, for October 3 and to the Hotel Albert, Selma, Alabama, for October 4. Buses will terminate in Jackson and Montgomery Saturday afternoon, October 5.

The Mississippi Geological Society extends a cordial invitation to all to make this trip. The outcrops are excellent, and the trip promises to be most interesting.

NEWS BULLETIN STAFF

William H. Moore ----- Editor
Shell Oil Co.

Geo. R. White ----- Asst. Editor
Sinclair Oil & Gas Co.

Ed Minnahan ----- Reporter
Amerada Petroleum Corp.

COMMITTEE REPORTS

Nomenclature Committee:

Discoveries as announced by the Nomenclature Committee are as follows:

Diamond Field — Larco #1 Gray Estate, Sect. 7 — T9N-R6W, Wayne County. Flowed 168 BOPD, 7/64" choke, TP 770#, GOR 500:1, 38.4° gravity oil. Completed May 14, 1957 in the Hosston Formation.

Red Lick Field — Humble Oil & Refining Company #1 Dockery, Sect. 40 — TION — R2E, Jefferson County. Pumped 29 BOPD, GOR 300:1, 36.7° gravity oil. Completed May 20, 1957 in the Lower Tuscaloosa Formation.

Richardson Creek Field — Serio-Punches #D-1 U.S.A., Sect. 9 — T5N-R2E, Franklin County. Flowed 69 BOPD and .8% BS&W, 6/64" choke, TP 370#, GOR 300:1 est. Perforated interval 4694-95 in the Wilcox Formation. Completed June 8, 1957.

Dexter Field — Shelly-Kin-Ark #1 Dexter, Sect. 6 — TIN-R13E, Walthall County. Dual gas well from perforations 9622-32' in the Lower Tuscaloosa Formation, calculated open flow 38 MMCF and 20 bbls. condensate per MMCF. Perforations 13516 — 530' in the Paluxy Formation, calculated open flow 2.650 MCF, no condensate. Completed July 8, 1957.

Glendale Field — Milner-White and Wilson Drilling Company #1 Brown-Reynolds Unit, Sect. 27-T5N-R1W, Adams County. Pumping and flowing by heads 168 BOPD plus 10% SW, est. 40° gravity oil. Perforations 6665-67 in the Wilcox Formation.

TAR Creek Field — Rimrock-Tidelands & Wilkinson Oil Company #1 G. I. Crock, Section 33-T4N-R1E, Wilkinson County. IP: Flowed at the rate of 96 BOPD, 32° gravity, no BS&W, through 6/64" choke, TP 440#, CP 350#, GOR 200:1 est. Perforated interval 6612-16½ in the Wilcox Formation. Completed August 29, 1957.

Publications Committee:

The Publications Committee reports total sales for June and July of \$190.56. There have been 200 advance orders for the new publication "Mesozoic-Paleozoic Producing Areas of Mississippi and Alabama".

Bowling Committee:

Boasting the largest slate in its six-year history, the Petroleum League opened the 1957-58 season on September 5. With Gulf adding two teams, the league ranks were increased to twelve teams, making the league also the biggest in Jackson. In addition to the new entries, all of last year's teams are returning, consisting of two teams from Pan-American, two from Union-United Gas and one each from Sun, Sinclair, Ohio, Continental, Cities Service and California.

Last year's champion Sinclair contingent has returned with the same line-up that carried them to the top. Early-season indications are that they can look for some real competition from several quarters. California should be Sinclair's big thorn, having benefited from some important additions to their team which finished second last year. Also more or less in tact and each claiming new strength are Continental, Sun, Ohio, United Gas and Cities Service. The question marks, in addition to Gulf's new entries, are both Pan American teams and Union.

The league will bowl on Thursday nights at 6:30 p.m. again this year, with the season running from September 5 to May 21. Although most rosters are filled, a few openings remain and interested parties are urged to contact Don Bergmann (California), secretary, or Eric Talmage (Sinclair), president of the league.

OFFICERS AND COMMITTEES FOR 1956-57

Boy Scout Committee:

The Boy Scout Committee of the Mississippi Geological Society concluded the Geology Merit Badge Series for 1956-57 by conducting a field trip on May 11, 1957. Stops were made at the petrified forest near Flora, a gravel pit south of Yazoo City, the type locality of the Yazoo Clay near Yazoo City, and the type locality of the Mint Springs lime near Vicksburg. The committee members were assisted by Frank Frascogna, Ray Frisby, and Baxter Smith in conducting the field trip.

This field trip was preceded by five lecture series on geology which were conducted during the months of April and May. Thirty-two scouts participated in the program. Members of the committee were George T. Thomas, Dale Myers, Ed Blanton, and Jim Furrh. The boys' response to this brief introduction to geology was highly encouraging. Several of the boys followed up by passing the requirements for the Geology Merit Badge.

Committee On Preservation Of Cores & Samples

A catalogue "Sample and Core Repositories of the United States, Alaska and Canada" prepared by the A.A.P.G. Committee on Preservation of Cores and Samples, Ralph E. Taylor, chairman and on which Claude D. Smith was the representative for Miss., Tenn., and Alabama has been published through the courtesy of Core Laboratories, Inc.

Copies may be obtained either by contacting Core Labs.; Miss. representative, Mr. E. C. Russell, 2136 Paden St., Phone 3-0924, Jackson, Miss., or by writing Core Laboratories, Inc., P. O. Box 10185, Attn. Dept. SD, Dallas, Texas.

Any corrections or suggestions concerning this publication are welcomed as a second edition is planned. Contact Claude D. Smith, Union Producing Company, Box 1020, Jackson, Miss.

Entertainment

Last call for reservations for the Society golf, bridge and dancing party to be held at the Colonial Country Club. Reservations must be made by September 10, so arrangements can be made. Golfing gets under way at 12 noon, make your own foursome. The entrance fee is \$3.00. While the men are golfing, the ladies can form their foursomes for bridge. There will be free beer at 6:00 p.m. with the dinner and dancing starting at 7:30 p.m. The tariff for the dinner is \$5.00 per couple and tickets are on sale with H. L. Francis — Carter Oil Co. and H. K. Ware — Hycologs Inc. Let's make this an annual event with a big turn out.

Pre-Publication Notice!

Mississippi Geological Society

The Mississippi Geological Society is preparing for publication an up-to-date compilation of information on fifty-seven (57) oil and gas fields in Mississippi and Alabama, which will be ready for early fall distribution.

This edition, entitled "**Mesozoic-Paleozoic Producing Areas of Mississippi and Alabama**", will contain fifty-seven (57) maps of the individual fields and specific geologic and production data on each field. In addition, there will be a discussion dealing with the habitat of oil in the Southeastern States, two cross-sections showing the relationships of the Lower Cretaceous sediments in the area, and two composite, columnar sections showing something of the lithology and stratigraphy, as well as the location of the zones from which each of the fields produces.

A special pre-publication offer is being made. All volumes which are ordered and paid for by October 1, 1957, will be mailed, postpaid, for \$10.00. All copies after that date will be sold for \$12.50 plus postage. The publication will be available by October 15, 1957, and can be ordered from:

Mississippi Geological Society
P. O. Box 2253
West Jackson 7, Mississippi

The Mississippi Geological Society

Society Executive Council

Emil Monsour—Sun Oil Company	President
Gerald K. Anderson—Ohio Oil Company	Vice President
Emmett R. Adams—Shell Oil Company	Treasurer
William D. Stinton—Lion Oil Company	Secretary
William Nugent—Honolulu Oil Company	Program Chairman
Ben W. Ploch—Skelly Oil Company	Past President

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(SE District Representative)
Emil Monsour
(SE District Representative)
Wilbur H. Knight
A. E. Blanton
Henry N. Toler

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Geological Auxiliary

The Women's Geological Auxiliary announces the officers for the new year. They are as follows:

President	Mrs. L. B. Culligan
Vice-President	Mrs. R. D. Sims
Secretary	Mrs. D. R. Bergmann
Treasurer	Mrs. C. R. Scurlock
Reporter	Mrs. E. G. Jeffreys
Corresponding Secretary	Mrs. G. O. Davis

The first meeting for the new year will be a coffee at the Riverside Community house on September 12, 1957. In October there will be a dinner meeting and in November a bridge luncheon. The annual Christmas Party for husbands and wives will be held December 5, 1957, at the Mississippi Power and Light Lodge.

Geophysical Society

The Jackson Geophysical Society announces the following officers for the current year:

President ----- W. J. Robinson—Sinclair
 Vice-President ----- R. C. Cole—Shell
 Secretary & Treasurer ----- J. E. MacGregor—California

The first meeting of the year will be held September 23 at the Robert E. Lee Hotel. The speaker for this meeting will be Dr. P. A. VanMelle of Shell Oil Company, who will speak on "Modern Concepts in Reflection Seismology".

Refreshments will be served at 5:30 with dinner at 6:30. Everyone is cordially invited to both the dinner and the program afterward, but those who will be present for the dinner should make reservations ahead of time. These reservations may be made with Miss Kovarik at California.

Personals

ATLANTIC

BILL MORROW was transferred to the Jackson office from Dallas, Texas.

TED RUSSELL joined the Geological staff

CALIFORNIA

California has had quite a turnover in personnel with changes as follows:

S. C. BOICOURT from Jackson to Barranguilla, Columbia
 P. E. DIAMOND from Jackson to Denver, Colorado
 SCOTT PHILLIPS from Jackson to Pensacola, Florida
 B. I. SUSONG from Jackson to Natchez, Mississippi
 D. L. GOODRICH from Mattoon, Ill. to Jackson, Mississippi
 J. M. HENTON from Mattoon, Ill. to Jackson, Mississippi
 M. D. HORTON from Pensacola, Florida to Jackson, Mississippi
 E. L. HORSTMAN from Pensacola, Florida to Jackson, Mississippi
 J. R. REESE from Denver, Colorado to Jackson, Mississippi
 MISS JANE ROBBINS, Geophysical Computer, from Houston, Texas to Jackson, Mississippi
 J. E. STUBBS from Denver, Colorado to Jackson, Mississippi
 J. C. MANN has been hired from the University of Kansas
 R. W. SWANSON has been hired from the University of Nebraska
 J. W. GREEN is leaving September 6, 1957, to work on his Master's Degree in Geology at Mississippi State College.

GULF

Gulf has transferred its Laurel Production office to Jackson. The new office will be at 204 South State. Personnel involved in the move are District Production Geologist — J. A. OTTS, JR., Assistant Production Geologist — MAX NEWSOM, Geologists — A. F. WHATLEY, J. A. SULLENS, C. R. SOMMERS, R. E. MARTIN, C. H. JOHNSTON, and C. W. DIETZ. C. M. PHILLIPS and R. H. PRESCOTT have been assigned to the Jackson Exploration office.

P. O. Box 2253
 W. Jackson, Miss.



**Mississippi
 Geological Society** QUARTERLY NEWS BULLETIN

PAN AMERICAN

RICHARD R. ZACHMAN, senior geologist, has been transferred from Wichita, Kansas to the Jackson office.

MARSHALL KERN, geologist, a native of Canton, Mississippi, was recently assigned to the Jackson office from Bismark North Dakota.

New geologists in the organization are DONALD E. PAULL and JAMES W. GUYTON, Don hails from Wisconsin and was trained at the University of Wisconsin. Bill comes from California and received his geological training at the University of California. Welcome to Jackson.

SHELL

W. W. OGDEN, division exploration manager, has returned from a six months tour of Shell operations at The Hague and vacation in Scandinavia.

J. L. BIHM, geologist, has completed the training program and has been assigned to the Jackson office.

RHYS J. DAVIES, paleontologist, has returned to Miami University in Ohio to complete work on his Masters' Degree. He will also be married to Miss HANNELORE MARTEN on September 14, in Springfield, Ohio.

SUN

JOHN MOREDOCK has been transferred to Sun's new foreign operations in Venezuela, being replaced as District Geophysicist by TOM TILLMAN, recently transferred from Dallas, Texas.

SINCLAIR

BILL HOLLINGSWORTH has been transferred to New Orleans, where he will work in the Offshore Division.

HARVEY KINGRY, formerly with Exploration Service Company in Bartlesville, Oklahoma, is now a geophysicist in the Jackson office.

GRAHAM HUGHES has been employed as a geologist in the Jackson office. He is from Monroe, Louisiana, and was formerly employed by Union Producing Company.

TIDEWATER

BOB McCONNELL has been transferred from the Jackson office to Corpus Christi, Texas.

New Arrivals

MR. and MRS. DICK BOWMAN, a son, Bruce Reeves born May 18, 1957.

MR. and MRS. DON CHAMPLIN, their fourth son, Patrick David, born July 9, 1957.

MR. and MRS. JOE SIEGMUND, a son, Mark Allen, born June 27, 1957.

MR. and MRS. JACK WALLACE, a son, Stephen Michael, born April 24, 1957.

MR. and MRS. J. L. WHITE, a daughter, Kathy Nelda.

MR. and MRS. W. J. ROBINSON, a daughter, Peggy Louise.

Mr. John H. Marshall
 Magnolia Petroleum Co.
 Box 3671
 West Jackson, Miss.



Mississippi Geological Society

QUARTERLY NEWS BULLETIN

VOLUME IV

DECEMBER, 1957

NUMBER 5

Presidents Report

Our reference book on "Mesozoic-Paleozoic Producing Areas of Mississippi and Alabama" has made its appearance, and we are very proud of this publication. It is a beautifully bound volume filled with information which should be helpful to all who are interested in this area. The reference book committee, which undertook this project under the past administration, is to be commended, and especially do we wish to thank Messrs. Verne Culbertson and Xavier Frascogna for their untiring efforts in compiling and editing the data.

Our meetings thus far have been well attended, and much interest has been shown. Credit for this should go to our Program Chairman, Mr. Bill Nugent, for having scheduled good speakers, and to our Entertainment Chairman, Mr. Claude Smith, for the fine meetings arrangements.

The Wilcox Field Trip Committee, with Harold Baker serving as chairman, conducted a field trip in Southwest Alabama in early October. This trip was a re-run of the Mississippi Geological Society Tenth Field Trip of 1953. It was well attended and showed the results of excellent planning by the committee.

As announced previously, the Mississippi Geological Society will host the G.C.A.G.S. convention at Biloxi in 1960. Your executive committee has appointed Mr. A. E. Blanton to serve as general chairman.

Emil Monsour

Mississippi Geological Society Field Trip

The Mississippi Geological Society conducted its annual field trip October 3, 4, and 5.

Sixty-three geologists and 33 students from Millsaps and Mississippi Southern made the trip which covered outcrops of Claiborne, Wilcox, Midway, and Upper Cretaceous age in west central Alabama. All participants made the trip in special chartered busses, two of which originated in Jackson and one in Montgomery.

The field trip committee was fortunate in being able to secure Mr. Phil La Moreaux from the USGS in Tuscaloosa, and Dr. Lyman Toulmin, head of the Geological Department at Florida State University, to serve as field leaders. Both of these gentlemen are experts on the outcrops visited, having written numerous publications covering the geology of the area.

Dr. Walter B. Jones, State Geologist for Alabama, made the welcoming address to the group at a banquet held the first night in the Jefferson Davis Hotel in Montgomery. Dr. Jones played a large part in making the trip preparations prior to the actual trip. Through his efforts, it was possible to make available several publications that otherwise could not have been obtained.

Dr. Priddy of Millsaps and Dr. Brown of Mississippi Southern accompanied the students from these schools. The students seemed to enjoy the trip and all demonstrated an unusual interest in the geology. The geologists making the trip are to be complimented on their splendid cooperation with the committee, and field leaders in explaining and discussing the geology with the students.

An added vote of appreciation is due to the numerous oil companies who permitted their employees to take the time to serve on the field trip committee and to participate in the trip. Without their help and splendid cooperation, this trip could never have been possible.

THE OFFICERS

AND THE NEWS BULLETIN STAFF

OF THE MISSISSIPPI GEOLOGICAL SOCIETY

WISH YOU

A Merry Christmas

and

A Happy New Year

New Photo Directory To Be Published

Publicity Chairman Chuck Griffin announces plans to publish a new photo directory of Geological Society members. If possible photos used for the last directory published in 1955 will be used, cutting down on the number of new photos that would need to be made. Chuck plans to start compiling the directory around January 1. As in the past the cost of publication will be paid by advertising, so if you know of new advertisers, contact Chuck Griffin at Schlumberger.

AAPG Research Fund

Henry N. Toler, who is a member of the AAPG Voluntary Research Fund Campaign Committee calls attention to the fact that the Committee is still raising funds which are needed to carry on the various research projects being conducted by the AAPG Research Committee.

Contributions may be made by sending your check direct to the AAPG Headquarters, Box 979, Tulsa 1, Oklahoma, or to Henry N. Toler, who will send them in. A contribution can be made along with your annual dues.

Geophysical Society

Recent meetings of the Jackson Geophysical Society, held monthly at the Robert E. Lee Hotel, have included talks on Seismic Operations and Procedures. On September 23, Dr. P. A. Van-Melle of Shell Oil Company presented a paper on "Modern Concepts in Reflection Seismology." On October 21, Fred Romberg of Geophysical Service, Inc. spoke on "The Place of Gravity in Exploration." On November 25, the speaker was W. S. Hawes of Seismic Explorations, Inc. whose topic was "Qualitative Analysis of Multiple Reflections."

There is no meeting scheduled for December, and the next meeting is tentatively set for the third week in January, but plans are incomplete.

NEWS BULLETIN STAFF

William H. Moore _____ Editor
Shell Oil Co.

Geo. R. White _____ Asst. Editor
Sinclair Oil & Gas Co.

Ed Minnahan _____ Reporter
Amerada Petroleum Corp.

COMMITTEE REPORTS

Treasurer's Report

A brief resume of the finances of the Society for the months of September, October and November, 1957, is as follows:

Operating expense	
September	\$148.58
October	482.00
November	190.45
	821.03
Income	
Dues	\$330.00
Meetings	541.00
	871.00

The Field Trip was a success in that the finances were in the black.

Total expense	\$1963.70
Total receipts and contributions	2179.50

In addition \$432.00 was credited to the Publications Committee for the sale of 96 copies of the 10th Field Trip Guide Book and Supplementary Road Log, used on the trip.

The Dinner Dance and Golf Tournament finances ended up red.

Expenses	\$459.51
Receipts & Donations	338.70

If there is anyone interested in a breakdown on any of these figures, we will be happy to have you come over and see us.

Of interest is the fact that the Society now has a total of 210 members in good standing and over 50 old members who have not yet paid current dues. Those who have not paid will be dropped from the active roll on January 1, 1957.

Publications Committee

The Mesozoic-Paleozoic Producing Areas of Mississippi and Alabama has been placed in the hands of all who have ordered it.

A total of 502 copies were sold at the prepublication price of \$10.00 and 149 copies have been sold since the prepublication offer expired. This is a total income of \$6,882.50 which has been applied against a total cost of approximately \$17,500.00.

The sale of other publications has been increasing and a monthly tabulation is below:

September	\$77.80
October	84.78
November	311.57

A total of \$201.63 is in accounts receivable on regular publications, especially the new reference book. An up-to-date list is available to any who are interested and orders may be made by mail or phone.

P. O. Box 2253 or call 3-1624

Charles E. Brown, Chairman

Nomenclature Committee

Discovery as announced by the Nomenclature Committee as follows.

Ellis Cliffs Field — Marlin Expl. Co. #1, Pierce Butler — Sec. 15, T. 5 W., R. 3 W., Adams County. Flowed 288 BOPD, .3% BS&W, 1/4" chk. TP 280# 43.6° Gravity oil, Perforated interval 6663-66 in the Wilcox formation.

Bowling Committee Petroleum League News

Except for the top and bottom teams, this year's Petroleum League slate is about the most evenly balanced ever. After nine weeks' play, only ten points (five games) separate second and eleventh places. This is just a little more than one week's worth, so a great deal of shuffling is still in the offing.

California's potent aggregation is currently perched atop the heap, ten points in front of the second place team. They also lead in the team average department with 751, which ranks favorably with most of the teams in Jackson. Their 2909 tops all other team three-game totals for the season and their 1031 is the league's high team game. All in all, Calco seems to be living up to their pre-season reputation. However, lest they get overconfident, let them recall how, two years ago, Stanolind blew a 20-point lead in the last three weeks of the season.

Coming on fast is the Cities Service quintet, having surged from 12th place to a tie for second in four short weeks on the strength of their winning 28 of a possible 32 points. Like Calco, Cities Service has two men in the top five averages, and this seems to make quite a difference over the long haul.

A real pleasant surprise to the league is the showing of Gulf's two additions who, in spite of relatively low averages, have evidenced no inclination to give up merely because they are newcomers to the scene. Their competitive spirit has given the entire league reason to be glad that it went to twelve teams this year.

In the individual average department, the fifteen high positions are currently owned by: Don Bergmann (California) 176, Ed Blanton (Sun) 164, Bill Turner (Cities Service) 159, J. B. Littleton (Cities Service) 155, Everett Craycraft (California) 155, Bill Eiser (Union) 153, Bob Arrington (Continental) 152, Chas. Sommers (Gulf 1) 149, Bob Jacobs (Union) 148, Pete Parker (Sun) 147, Edgar Magee (Ohio) 146, Bob Neil (PanAm "Oilers") 146, Bruce Wilder (Cities Service) 146, Russell Alexander (California) 145 and Bill Kerr (California) 144.

Standings with seven weeks to go in the first half are:

TEAM	WON	LOST
California	50	22
Cities Service	40	32
Ohio	40	32
PanAmerican "Oilers"	40	32
Gulf 2	39	33
Gulf 1	38	34
PanAmerican "Pets"	36	36
Continental	34	38
Sun	32	40
Union	30	42
Sinclair	30	42
United Gas	23	49

The Petroleum Bowling League is losing its most valuable man through the transfer of Don Bergmann to Bismark, North Dakota. Don was instrumental in the formation of the league in 1952. Through his unceasing efforts he has guided the league from its infancy to its well-established present size of twelve teams. To accomplish this Don has put in many hours of work each week. The new officers hope that they can continue the excellent guidance of the league. Since the ground work has been well laid there is every reason to expect continued success.

The petroleum industry also owes Don a debt of gratitude. Through the formation of the league Don has brought together exploration men from several different companies. At the bowling alley, these men have become good friends, making the exchange of ideas relative to the search for oil easier. All have benefited. Don will be greatly missed by the League and the Society.

ABSTRACTS

Some Regional Applications of Paleogeology

Dr. A. I. Levorsen

Many different kinds of geologic maps are used in modern petroleum exploration. They include structure, paleogeologic, facies, isopach and hydrodynamic maps and structural and stratigraphic sections. These are inter-dependent and are most useful when several can be applied to the same area.

Paleogeologic maps are helpful in many local problems and also are useful reconnaissance tools in a variety of regional problems. The data may be from well records, they may be from areal maps, or they may be a mixture of both. This lecture is chiefly devoted to a discussion of some of the applications of paleogeologic maps to such regional problems as geologic history, truncation or shore line?, location of wedge belts of rocks, time of oil and gas migration, pre-unconformity structure, sources for post unconformity sediments, paleo-hydrodynamic gradients, and continental drift.

In addition to some well known examples of paleogeologic maps with the Mid-Continent region of the United States, paleogeologic studies of several foreign areas are used to illustrate some of the applications. The areas include the Canadian shield, the African shield, the Angara shield of Siberia, the Paris Basin of France, and the use of paleogeologic maps applied to the problem of possible continental drift between southern Africa and South America. Finally reconnaissance paleogeologic maps of the pre-Cretaceous surface and the pre-Mesozoic surface of the world show the areal geology of the earth at those two times in geologic history.

Ancient Beaches In Oil Finding

Dr. Warren O. Thompson

The observed original structures in modern beaches, bars, and dunes may be used as criteria to identify ancient sediments now a part of the geologic column as ancient beaches, bars, and dunes. Ancient beaches, like their modern counterparts, are limited in vertical and areal extent, and occupy only a very small part of the sedimentary record. They have definite relationships with surrounding deposits, and may be interstratified with windblown sand, estuarine, lagoon, and fluvial deposits. While the dominant material is sand, size of particles may range from very fine sand to large boulders. Silt and clay are rare, and flakes of mica and other platy minerals are not common.

Materials of upper foreshore beaches are arranged in extensive laminae. Particles in a single lamina are of uniform size, but sizes change abruptly from one lamina to another. Angle of primary dip of laminae seldom exceeds ten degrees. Uncusped beaches laminae may dip in one general direction or oppositely, and are often extensively truncated. The parallelism of strike and smallness of angular dip of both truncating surfaces and adjacent laminae in upper foreshore beaches are particularly diagnostic.

In cusped beaches, the direction of dip of laminae and the less extensive truncating surfaces corresponds to that of a row of shallow inter-jacent synclines with almost parallel axes plunging gently in one direction.

Deposits of upper foreshore beaches may contain swash marks, backwash marks, and swirl structures. In places, they display buried scraps parallel to the general strike of the involved laminae.

Materials of lower foreshore beaches are arranged in nearly horizontal, discontinuous layers of rather uniformly sorted, steeply inclined, foreset laminae which are much shorter than those of upper foreshore beaches. The short, foreset laminae dip in all directions with a steep angle of dip approaching a maximum of thirty degrees in some places. These foreset laminae show extreme diversity in direction and angle of dip, and are interstratified with shallow, filled basins containing laminated, micaceous sediments of low dip.

No single characteristic of a beach is sufficiently distinctive to permit identification of an ancient beach. However, ancient beach deposits may often be recognized by careful study of all characteristics of the sediments, giving proper weight to the various criteria. These criteria may be applied to the petroliferous Lyons sandstone of the Colorado Front Range, to sandstones of the petroliferous Dakota group in the Denver Basin, and to certain terrace deposits along the California coast.

Committee Changes

Several changes have been made on various committees since the last issue. Charles Brown is acting Treasurer in the absence of Emmett Adams; Glenn Clark has replaced H. K. Ware on the Entertainment Committee. Ware has been transferred to Shreveport. Ed Blanton now heads the Bowling Committee since Don Bergmann has been transferred and Verne Culbertson has been added to the Nomenclature Committee.

Geology and Unitization of Soso Field

Max Newsom

Differentiated substance of sediments since before Cretaceous time is the probable origin of Soso structure, a northwest plunging anticline located on the northern periphery of the Mississippi Salt Dome Basin. Sediments ranging in age from the surface Catahoula formation (Lower Miocene) to probably the upper portion of the Hosston formation (Lower Cretaceous) have been penetrated at Soso with multiple oil and gas reservoirs having been encountered from the Eagle Ford formation (Upper Cretaceous) to what is thought to be the Sligo formation (Lower Cretaceous).

The presence of deep multiple reservoirs in the Lower Cretaceous section motivated a field-wide unitization program. Preliminary steps toward unitization, unitization agreements, and advantages of field-wide unitization at Soso are discussed in this paper.

From The Colleges

Millsaps College

Dr. R. R. Priddy announces another full semester for the Millsaps Geology Department. There will be 5 classes in Elementary Physical and Historical Geology with 35 students in each class and advance classes in Physiography, Mineralogy, Geology of Mississippi, and Special Problems in Geology. There will be 3 field trips this year to study the stratigraphy of Mississippi.

A new course in Lithology will be taught this semester, and the Department has remodeled its facilities and equipped a new laboratory to serve for Mineralogy and Petrography. The Department has also acquired \$2000 worth of new minerals, fossils and rocks.

This summer Dr. Priddy taught two courses at the Gulf Coast Research Laboratory with eight students in Marine Geology and eight in Problems in Sedimentation.

On November 8-9, Millsaps students took a field trip into the Paleozoics of Northwest Alabama and the Upper Cretaceous of Northeast Mississippi. Men from several of the oil companies in Jackson accompanied them.

On or about January 1, Millsaps will offer for sale duplicate sets U. S. G. S. water supply papers, professional papers, bulletins and monographs; also Scientific Monthly's, Proceedings of National Museum, Mineral Resources Bulletins, Smithsonian Institution Reports, Bureau of Soil Reports and Journals of Geology. The cost will be \$2.00 per volume with no sets to be broken. A mimeographed list of the series available will be ready about January 1.

Mississippi Southern College

Dr. Olin T. Brown announces the addition of Dr. David A. DeVries to the staff. Dr. DeVries received his Ph. D. from the University of Wisconsin and has been employed by Standard Oil Company in Corpus Christi, Texas. Dr. DeVries was trained as a Paleontologist and Stratigrapher and will serve as Associate Professor at Southern.

The Mississippi Southern Geology Department now has 181 majors. Seven former graduates received their Master's Degree from other institutions this year. Twenty-nine majors attended the new Mississippi Southern Field Camp at Spring City, Tennessee. The new camp is on a three acre plot which was given to the school this summer. A permanent physical unit will be constructed there in the near future. Dr. Brown and Dr. J. F. L. Connell were instructors for the summer studies.

Geological Auxiliary

The Women's Geological Auxiliary has been active over the past months with varied and interesting programs. On October 10, there was a dinner meeting featuring a review of the book "The Unfair Gods" by the author, Winnifred Greer. Mrs. D. C. Harrell was chairman for this meeting. In November, members enjoyed morning cards followed by luncheon at Primos. Mrs. C. A. Houston was in charge of the arrangements for this meeting. On December 5, the annual Christmas party was held at the Mississippi Power and Light Company Lodge. It consisted of a cocktail buffet and dancing. Mrs. Frank Wilson was chairman for this meeting.

Future plans include a dinner meeting with guest speaker at LeFleurs on January 9. Mrs. W. J. Robinson will be in charge of arrangements. On February 13, the Auxiliary will present a fashion show at the Crown Room of the Edwards Hotel. This show will feature creations by the members. Mrs. W. D. Lynch is chairman for this program.

Entertainment

First Golf Tourney A Big Success

The Mississippi Geological Society's first golf tournament was played at the Colonial Country Club October 11. In spite of two postponements, 39 golfers turned out for the contest. The winners were:

Ben Ploch — low net (64) — Ridgway traveling trophy and personal trophy

Ed Launius — 2nd low net (67) — personal trophy

Harold White — low gross (82) — personal trophy

Gene Davis — 2nd low gross (83) — personal trophy

The following players won golf balls for longest drives, etc.

Ryp Baker, Charles Barton, Glen Clarke, Verne Culbertson,

Dave Harrell, Charlie McClellan, Grant Perkins, E. M. Ross, Boo Spalding, Don Whitaker.

Thanks to the following companies for contributing beer money: Core Lab, Delta Exploration, Hycalog, Neely Blue Print, and Schlumberger.

Thanks go to L. L. Ridgway Co. for furnishing the large traveling trophy, and thanks to Bo Ware and Gene Davis for overseeing the affair.

Lets try for a bigger and better tournament next year.

Personals

Arkansas Fuel — Kerry S. Briggs has been transferred to the Jackson office from Lafayette, La.

California — Don Bergmann has been transferred to the Bismarck, N. D. office.

Sinclair — Tom Ferris has joined the geological staff. Tom was with Sohio in New Orleans before joining Sinclair.

Skelly — Verne Culbertson has joined the geological staff.

Sun — H. B. Parker, Jackson office development geologist, will leave for Sun's Venezuela District shortly after Jan. 1.

Charles Marguardt, geophysicist, has been transferred to Jackson from Beaumont, Texas.

Texas Co. — Congratulations to George McWilliams who was married to Nancy Cunningham of Birmingham. The marriage took place September 7.

Union Producing — Jim Sullivan, a graduate of L. S. U., has joined the geological staff.

New Arrivals

Mr. & Mrs. G. K. Anderson — a son Keith Alan

Mr. & Mrs. John Lukert — a daughter Elizabeth Ann

Mr. & Mrs. Bob Arrington — a daughter Cynthia Ann

Mr. & Mrs. Charlie Bilberry — a son Michael Charles

Mr. & Mrs. Charles Barber — a son, Charles, Jr.

Mr. & Mrs. R. L. Schmidt — a son thomas

Mr. & Mrs. Tom Tillman — a daughter Holly Jo

Coming Events

Feb. 16-20, 1958 — AIME, ANNUAL MEETING, Hotel Statler, New York City. SECg Technical meetings held in conjunction.

March 10-13, 1958 — AAPG-SEPM ANNUAL MEETING, Biltmore Hotel, Los Angeles, Calif.

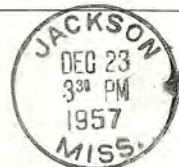
May 1-3, 1958 — GSA, SOUTHEASTERN SECTION, Co-sponsors are Ala. Geol. Surv. and Dept. of Geol., Univ. of Ala.; Theme: Economic Geology of the Southeastern U. S. in relation to future world events. Tuscaloosa, Ala.

May 5-6, 1958 — AIME, SOC. PETROLEUM ENGINEERS, Third Biennial Secondary Recovery Symposium, Wichita Falls, Texas.

P. O. Box 2253
W. Jackson, Miss.



Mississippi Geological Society QUARTERLY NEWS BULLETIN



Mr. John H. Marshall
Box 3671
Jackson, Miss.



Mississippi Geological Society

QUARTERLY NEWS BULLETIN

VOLUME IV

MARCH, 1958

NUMBER 6

President's Report

Chuck Giffin, chairman of the photo-directory committee, reports that photographs for all except approximately twenty of the total membership have been obtained. This committee has given generously of its time to make this publication a success. The splendid cooperation of the members and the devotion of the committee to this project are deeply appreciated. We believe that this directory will be a useful reference. You are again reminded that the members will receive this publication free of charge.

The membership of the society has reached an approximate total of 285 which is an all-time high for this organization.

During the February 12 meeting, the members voted approval to a proposed amendment to the By-Laws of the Society which raises the annual dues to \$3. This amendment becomes effective for the 1958-59 fiscal year. It is hoped that the increased dues will carry the financial load for our normal operations.

The entertainment committee has announced that our spring dance will be held on the night of April 11. Every effort will be made to keep the costs to a minimum. It is the hope of the Executive Committee that this function will not result in a financial loss to the society. Your cooperation and attendance are urged.

EMIL MONSOUR

Jackson Geophysical Society

The Jackson Geophysical Society met jointly with the Geological Society on March 20. The next meeting will be a special meeting on April 8. Mr. O. C. Clifford, Jr., President of the SEG, will speak on the "Affairs of the SEG," and Ben F. Rummerfield, Vice President of the SEG, will speak on "Geophysics and Geopolitics." This will be a dinner meeting at the Robert E. Lee Hotel. The next regular meeting will be April 28. This will also be a dinner meeting at the Robert E. Lee. Phil Gaby of Delta Exploration will present a paper on "Mixing — Why and Why Not."

The Society's annual picnic will be held late in May, but plans are incomplete.

Geological Auxiliary

The fashion show held February 13 was quite a success with some very attractive creations being modeled. A door prize of a silver compote was won by Mrs. R. V. Bownan.

On March 13, the meeting was held at the Jackson Country Club featuring bridge and a luncheon. Mrs. R. V. Bownan was in charge of this meeting.

There will be no April meeting as the women will be making decorations for the Geological Society spring dance; Mrs. Elwood Horstman will be in charge.

The May meeting will be for election of officers and will be dinner meeting at the Edwards Hotel. In June, there will be luncheon and bridge at the Edwards with Mrs. Earl Henson, Jr. in charge of arrangements.

The auxiliary lost its secretary when Mrs. Don Bergman moved to Bismarck, North Dakota. Mrs. George White will serve as secretary for the remainder of the year.

Nominations For New Year

The nominating committee has presented the following list of nominations for the coming year. These nominations will be voted on at the May meeting and further nominations can be made from the floor at this time. The candidates for President are Gerald K. Anderson, Geologist from Ohio Oil Co. and Charles E. Brown, Geologist from Magnolia Pet. Co. Those nominated for Vice-President are M. F. Kirby, Zone Geologist from Gulf Oil Corp. and Gene O. Davis, Assistant Division Manager from Sinclair Oil and Gas Co. E. R. Adams, Division Stratigrapher from Shell Oil Co. and George R. White, Geologist from Sinclair were nominated for Treasurer and Harold D. Baker, Geologist from Sun Oil Co. and L. B. Culligan, Geologist from California Co. will be candidates for the office of Secretary. All members are urged to attend this meeting to vote for the candidates of their choice.

Spring Dance

The Mississippi Geological Society Spring Dance will be held on Friday, April 11, 1958, in the Victory Room of the Heidelberg Hotel. Dancing to Jerry Lane's orchestra will start at 8:30 p. m. followed by a delicious breakfast at 12:30 a. m. The admission will be \$4.00 each or \$8.00 a couple. Members of the society have been given first crack at the tickets and their reservations should have been in by April 5, and ticket sales are now open to other company personnel.

Joint Meeting

A joint meeting of the Mississippi Geological Society and the Jackson Geophysical Society was held on March 20 in the Arlington Room of the Robert E. Lee Hotel. There was a social hour at 5:15 followed by dinner at 6:00 and a talk by Paul D. Weaver, distinguished professor of geology at Texas A. & M., who spoke on the "New Look in Mississippi Deep Tests."

Plans for additional speakers are incomplete, but it is hoped that two more local speakers and two AAPG speakers can be presented this year.

Mississippi Academy of Science

The Mississippi Academy of Science, Earth Sciences Division will meet at Millsaps College April 25 and 26. Papers will be presented Friday, April 25 starting at 2 o'clock at the Millsaps Geology Department and on Saturday, April 26 at 8 o'clock a field trip party will leave Millsaps to study the areas around Jackson and Vicksburg.

NEWS BULLETIN STAFF

William H. Moore Editor
Shell Oil Co.

Geo. R. White Asst. Editor
Sinclair Oil & Gas Co.

Ed Minnah Reporter
Amerada Petroleum Corp.

COMMITTEE REPORTS

Treasurer's Report

DECEMBER 1, 1957 to MARCH 1, 1958

INCOME:

Dues	\$ 104.00
Publications Sales	3,406.82
Meetings	517.50
Student Loan Repaid	100.00
Loan from Houston Society	4,000.00
TOTAL	\$8,128.32

EXPENSES:

Publications	\$7,275.36
Stenographic Work	22.55
Photodirectory	13.50
Office Supplies	57.66
Speakers	234.57
Dance	50.00
AAPG	15.00
Bank Service Charge	3.63
Meetings	674.82
Bowling League	25.00
Golf Tournament	16.52
Flowers	10.79
News Bulletin	69.16
TOTAL	\$8,468.56

INCOME \$8,128.32
EXPENSES 8,468.56

DEFICIT \$ 340.24

Bank Balance Brought Forward — 12-1-57 \$ 844.05

Petty Cash Brought Forward — 12-1-57 32.44
TOTAL **\$ 876.49**

Deficit 12-1-57 to 3-1-58 340.24
Balance on Hand 3-1-58 \$ 536.25

Bank Balance 3-1-58 \$ 503.45
Petty Cash On Hand 3-1-58 32.80

Publications Committee Report

DECEMBER 1, 1957 to MARCH 1, 1958

December Sales	\$1,026.24
January Sales	851.41
February Sales	776.50
TOTAL	\$2,654.15
Accounts Receivable	385.96

Nomenclature Committee

Junction City Field

Carter #1 Carmichael-Thompson
Section 32-2N-1E
Clarke County
Comp. 12-14-57. Pmp. ARO 188 bbls., 14.4° gravity oil plus 56% BS&W thru perfs. 3748-56 in Eutaw Formation.

Moss Hill Field

Whitaker-Wright #1 Whittington Hrs.
Section 33-6N-2W
Adams County
Comp. 1-17-58. Flowing 127 BOPD plus .2% BS&W, 10/64" choke, TP 390#, CP 670#, GOR 250:1, 40° gravity, perfs. 5419-22 in Wilcox.

Little Creek Field

Shell #1 Lemann
Section 35-5N-8E
Lincoln County
Comp. 1-24-58. Flowing 588 BOPD thru 15.5/64" choke, no BS&W, 39.5° gravity, GOR 260:1, TP 730, CP 170#, from open hole 10770-790 in Lower Tuscaloosa.

Extended Limits of North Esperance Field of Louisiana into Mississippi

Magnolia #2 Armstrong Estate
Section 9-6N-4W
Adams County
Comp. 2-1-58. Flowing ARO 105 BOPD, 44.5° gravity, no water, thru 1/4" choke, FTP190#, SITP 615#, GOR 350. from perfs. 7114-28 (STH) in Wilcox.

1957 DISCOVERIES

Field	Disc. Date	Producing Formation
Raleigh-Traxler	1-4-57	Rodessa, Sligo, and Hosston
Rose Hill	1-11-57	Wilcox
Martinville	2-5-57	Mooringport, Rodessa, Sligo, and Hosston
Gitano (now Abnd.)	2-26-57	Paluxy
Diamond	5-14-57	Lower Glen Rose and Hosston
Red Lick	5-20-57	Lower Tuscaloosa
Richardson Creek	6-8-57	Wilcox
Dexter	7-8-57	Lower Tuscaloosa and Paluxy
Glendale	8-14-57	Wilcox
Tar Creek	8-29-57	Wilcox
Ellis Cliffs	9-18-57	Wilcox
Junction City	12-14-57	Eutaw

Bowling

PETROLEUM LEAGUE NEWS

After losing their high average man, Don Bergmann, by transfer, California managed to finish just two points ahead of the Cities Service team to win the first-half championship. Except for the bottom team the first-half of the 1957-58 season saw all participating teams fairly well balanced. Final standings for the first-half are:

Team	Won	Lost
1. California	80	48
2. Cities Service	78	50
3. Ohio	74	54
4. Gulf "Prides"	69	59
5. Sinclair	68	60
6. Pan American "Pets"	68	60
7. Pan American "Oilers"	66	62
8. Sun	62	66
9. Gulf "No-Knockers"	62	66
10. Continental	60	68
11. Union	54	74
12. United Gas	27	101

After six weeks of play the second-half of the season has developed into another tight struggle for the top position with several of the low first-half finishers off to a rapid start. Union, an eleventh-place team, appears to be the surprise team and occupies the top spot, but Sun, California and the Gulf "No-Knockers" are close behind.

(Continued on Next Page)

Bowling

(Continued from Page 2)

Second-half standings after six weeks of play are:

Team	Won	Lost
1. Union	36	12
2. Sun	34	14
3. California	30	18
4. Gulf "No-Knockers"	30	18
5. Sinclair	26	22
6. Pan American "Pets"	26	22
7. Pan American "Oilers"	22	26
8. Gulf "Prides"	20	28
9. Continental	18	30
10. Ohio	18	30
11. United Gas	16	32
12. Cities Service	12	36

In the individual average department the ten high positions now eligible for prizes are: Ed Blanton (Sun) 159, J. B. Littleton (Cities Service) 152, Charles Sommers (Gulf NK) 150, Don Whitaker (Continental) 149, Bob Neil (Pan Am "Oilers") 146, Bill Kerr (California) 146, Gerry Anderson (Ohio) 145, Everett Craycraft (California) 145, Bruce Wilder (Cities Service) 145, and Bob Jacobs (Union) 144.

Don Bergmann (California) owned the League's high average (174) but was transferred before rolling enough games to qualify for a prize. Ron Ohnoutka (Pan Am "Oilers"), a newcomer to the League, is presently in the number one position with a 162 after 9 games of play.

ABSTRACTS

Citronelle Field

By Charles R. Sommers

Citronelle Field is located in North-Central Mobile County, Alabama, which is in the southwestern corner of the state. The field is named for the town of Citronelle which is approximately 30 miles north of Mobile, Alabama; 140 miles southeast of Jackson, Mississippi; and 132 miles northeast of New Orleans, Louisiana. The Citronelle Field area is on the Gulf Coastal Plain and exhibits a terrain of rolling hills which are upheld for the most part by varying thicknesses of the sand and gravel of the Citronelle Formation.

The Alabama Geological report states that "near Citronelle, borings were made in 1902 in search of oil, under the auspices of Mobile Oil Company." The second well attempted in this exploration endeavor went to an approximate depth of 1960 feet and reported a slight show of oil at 900 feet; however, the report on this finding of oil remains unconfirmed. This was apparently the first subsurface exploration undertaken in the area and indicates that the presence of a structural high was detected quite early from the geological exploration of the area.

Subsequent subsurface and geophysical exploration of the area, seeking to further define and evaluate the structure, continued intermittently. Structural interpretations of accumulated subsurface data, from core-hole programs and non-productive Upper Cretaceous tests, made the presence of a major structural feature on shallow horizons increasingly apparent. Reliable seismic data is sparse due in part to the presence of a surface veneer of loosely consolidated Citronelle gravel, which tends to absorb seismic energies. Magnetic data has been interpreted as indicating no anomalous feature, and gravity interpretations indicated only a weak minima.

It was not until October, 1955, when the Zach Brooks' et al. #1 Donovan well penetrated the Lower Glen Rose to a depth of 11,517 feet, and was dually completed in two distinct zones below the Ferry Lake Anhydrite, that commercial production was established at Citronelle.

The Citronelle Field is structurally a large, unfaulted, somewhat elongated dome with the major axis striking in a general north-west-southeast direction. The flanks dip gently away from the relatively flat top of the dome at approximately 100 feet per mile on the top of the Lower Tuscaloosa formation (6600'), where an abundance of subsurface data is available. On this horizon the structure is approximately 18 miles in diameter and has about 100 feet of relief. On the base of the Ferry Lake Anhydrite datum (-10,300'), which immediately overlies the producing horizons, well control beyond an eight mile diameter is extremely limited; however, the flank rate of dip is apparently the same as on the Lower Tuscaloosa (100 ft./mile). Additional drilling on the flanks of the

structure will quite likely establish that the same (1000 feet) of structural relief occurs on the Ferry Lake Anhydrite datum as was present on the Lower Tuscaloosa horizon.

Geophysical and subsurface data, now available, strongly suggest that the origin of this domal structure is a large deep-seated salt uplift. This uplift is situated on the southeastern edge of the Interior Salt Dome Basin which extends westward from a comparatively narrow area in SW Clark and NW Baldwin Counties, Alabama; expanding through the southern part of Mississippi and on into Central Louisiana. It has been estimated from gravity data that the salt beneath the Citronelle Field would be found at approximately 20,000 to 25,000 feet.

There are currently two distinctive oil-bearing zones producing from the Citronelle structure. These zones have been designated as the "Upper Donovan" and "Lower Donovan". A maximum stratigraphic interval of about 485 feet, immediately below the Ferry Lake Anhydrite, constitutes the "Upper Donovan" zone. The highest structural occurrence of the top of this zone is at an approximate subsea depth of -10,300 feet, with an oil-water contact having been encountered at a subsea depth of -10,785 feet.

The stratigraphic interval constituting the Lower Donovan Zone is defined as that section beginning at the approximate subsea depth of -10,910 feet and continuing to an oil-water contact found at a subsea depth of -11,139 feet, for a maximum interval of about 229 feet. There occurs between the Upper and Lower Zones an interval of 125 feet or more, consisting of shales and salt water sands which effectively separate the two zones.

There are 108 wells currently producing in the field. The Upper Zone is productive from 100 of these wells and the Lower Zone productive from 15. The average daily production from the field for the month of January, 1958 was approximately 11,115 bbls. of oil from the Upper Zone and 1284 bbls. of oil from the Lower Zone. The average daily production per well was approximately 111 bbls. from the Upper Zone and 68 bbls. from the Lower Zone.

The reason for any reduction in the well productivity capabilities can be partially answered when a person has a knowledge of the reservoir conditions, and the type of motivating force involved in the movement of the oil. The reservoir sands are extremely lenticular and exhibit very low porosities and permeabilities. Such conditions are certainly not conducive to a prolific production. There have been several instances at Citronelle when only the success or failure of a sand-frac job would determine whether a well was to produce economically or be abandoned. The value derived from employing a secondary inducement method has not been fully evaluated, but it would appear that a great deal of benefit has been and is being obtained from the practice of sand-fracing.

Since the time of the first pressure measurement, the reservoir pressures have declined so rapidly that it has become necessary to place all the wells on pump. A pressure survey taken on May 1, 1957 indicated an average field pressure of 3139 psi; another taken on November 1, 1957 showed that the average field pressure had declined to 2325 psi. The decrease in reservoir pressure from 4824 psi to 2325 psi after only 2 years of production would seem to be rather alarming and it certainly has induced some reconsideration of the potentialities of the Citronelle reservoirs. One conclusion that can be drawn from the rapid pressure decline is that there is not an effective water drive in the field, and that the forces moving the oil into the bore-holes are probably due to a solution gas.

There are estimated to be over 200 million bbls. of oil in place in the Citronelle reservoirs. However, the recoverable reserves by primary methods have been calculated to be less than 10% of the total volume. This is a much more conservative estimate than that expressed during the early development of the field. Estimates as high as 2 billion barrels of oil in place, and that each well would eventually gross a million dollars have been made.

Nevertheless, there has been and may well continue to be a substantial volume of oil produced from the Citronelle structure. The cumulative production for the field as of January 1, 1957 is approximately 6,000,000 bbls. of oil with the Upper Zone contributing about 5,200,000 bbls. and the Lower Zone contributing 800,000 bbls.

Perhaps the advent of a unitization agreement will alleviate a great many of the problems that are now facing the operators. Unitization of Citronelle could be close at hand, yet the culmination of such an agreement may be an arduous and difficult task. There is certainly a prevalence of optimism that a satisfactory solution can be found and will be found without undue delay or debate. I personally cannot visualize any reason why such a unitization should not transpire from the efforts of all the interested parties, or why the young Citronelle Field though admittedly ailing, is not curable to a great extent.

From the Colleges —

MILLSAPS COLLEGE

The advanced Geology students at Millsaps will take a field trip from April 2 to April 5 into West Georgia, Eastern Alabama and South Tennessee. On the trip the students will study pegmatites and metamorphics in Georgia, mineralization near Pucktown, Tennessee and Paleozoics around Birmingham, Alabama.

On April 19 structural geology students from Millsaps along with students from Mississippi Southern, Mississippi State and University of Mississippi will make a field trip to study the Kilmichael dome in Montgomery County.

This summer the Gulf Coast Research Lab at Ocean Springs, Mississippi will offer courses of interest to geologists. The courses offered are Marine Geology, being taught from July 14 to August 2 and Problems in Marine Sedimentation from August 4 to August 23. These courses will be worth 3 semester hours credit for both graduate and undergraduate students.

Millsaps Geology department invites you to use its 8 inch diamond saw and 4 inch diamond trim saw for cutting cores.

UNIVERSITY OF MISSISSIPPI

The University of Mississippi expects to graduate this Spring one student with B. S. in Geological Engineering, six with B. S. in Geology and two students with B. A. in Geology. In January, 1958, one student received his B. A. in Geology and another his B. S. in Geological Engineering.

The University will not operate its own field camp this summer but some 24 students are planning to take the course under the sponsorship of other institutions. Most will attend the course offered by Virginia Polytechnic Institute at Saltville, Virginia where most of last year's group were also accommodated. Arrangements are being made to place the others elsewhere.

At present there are three students working for their Master's Degree. All will spend the summer working on their individual research problems.

The present enrollment stands at 28 registered in Geological Engineering, 33 registered for the B. S. in Geology, 11 registered for B. A. in Geology, 3 engaged in work towards the M. S. Degree and 1 graduate student unclassified.

MISSISSIPPI STATE COLLEGE

The Geology Department at State now has the following staff:

Paul H. Dunn, Head	Stratigraphy
M. W. Myers	Geography and Cartography
Wm. H. Smith	Petroleum Geology
Ernest E. Russell	Paleontology, Micropaleontology
John M. Kaye (On leave)	Mineralogy and Petrology
Donald Keady	General Geology
Richard Herron	Engineering Geology, Agricultural Geology
Mrs. Doris Howell	Geography

There are 160 geology majors at State with 28 being graduating seniors. There are 16 graduate students and seven former students are working on advanced degrees at other institutions. The geology department will soon move to new quarters on the top floor of a new million dollar classroom and laboratory building to be built this year.

There will be a field trip into Florida from April 2 - April 7. The leader of this trip will be Dr. Harbins Puri of the Florida Geological Survey. This field trip is open and persons interested should write Mr. William H. Smith, Department of Geology and Geography, State College, Mississippi.

P. O. Box 2253
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**Mississippi
Geological Society** QUARTERLY NEWS BULLETIN

The Mississippi State Summer Field Camp will be held in the Sangre De Cristo Mountains near Las Vegas, New Mexico, from July 11 - August 14. All students majoring in petroleum geology are required to attend summer field camp.

Personals

CARTER — Marion E. Chandler has transferred to the Jackson office from Worland, Wyoming.

GULF — Badir Al ReFair has been transferred here from Kuwait, Arabia.

CALIFORNIA — Dave Snipes has transferred to the Jackson office from Harvey, Louisiana. Jerry Siler has joined the geological staff. He is a recent graduate of the University of Kansas.

LION — Lester J. Ringenberg is the new District Geologist. He came from the Salt Lake City office.

MAGNOLIA — Robert K. Johnson, a graduate of the University of Oklahoma, has joined the staff in the Jackson office.

PAN-AM — Chuck Houston has been transferred to Corpus Christi as District Exploration Superintendent. He is replaced by Willard F. Bunker from the Oklahoma City office, who will be District Exploration Superintendent for the Jackson district. A. T. Teague has been transferred to Oklahoma City and his District Geologist spot has been filled by William A. Skees from Corpus Christi. Ron Ohnoutka, Intermediate Geologist, transferred here from Casper, Wyoming.

SINCLAIR — J. F. Snyder, Vice-President and Division Manager, is on leave of absence with retirement from active service to become effective April 1958.

Roy E. Dasser has been promoted to Division Manager, Jackson Division.

Gene O. Davis, formerly Division Geologist, has been promoted to Assistant Division Manager.

Charles C. Barber has been promoted to Division Geologist.

SHELL — Larry Gordon has completed the Shell training program and has joined the geological staff in Jackson.

S. W. Welch, formerly with U. S. G. S., has joined Shell as Field Geologist.

Shell has opened a production office in Jackson with offices in the Deposit Guaranty Bank building. The following personnel will be engaged in geological work:

F. A. Shurtz	District Superintendent
O. D. Hutto	Senior Engineer
J. H. Williams	District Exploitation Engineer
F. A. MacDougall	District Mechanical Engineer
C. E. Majors	Office Supervisor
R. L. Walz	Exploitation Engineer
G. W. Keys	Exploitation Engineer

SUN — Jim Pulliam has been transferred from Shreveport to Jackson as Development Geologist.

Gene R. Musick has joined the geophysical section as party chief. He transferred from the Dallas office.

New Arrivals

Mr. and Mrs. L. B. Plock, a son, Gerald Robert.
Mr. and Mrs. Badir Al ReFair, a son, Majid.
Mr. and Mrs. Duncan Go'dthwaite, a daughter, Virginia.
Mr. and Mrs. Jack Goodwin, a daughter, Jan Carolyn.
Mr. and Mrs. Charles H. Fry, a son, Charles Hubert, Jr.
Mr. and Mrs. Larry Gordon, a son, John Steven.