# 1952

"Sedimentation in the Northern Gulf of Mexico" By Dr. Francis P. January Shepard, La Jolla Institute of Oceanography "Classification of Playa Lakes of Southwest California" February Dick Stone, U.S.C. "Stratigraphy of the Capistrano Formation" By Bill White "Cortes and Tanner Banks" By Jack Holzman, Shell Oil Co. "The Search for Oil in Nevada" By John H. Wiese "Geology of Iran" By Dr. J. V. Harrison, Oxford "Surveying in the Persian Gulf" By R. B. Moran, Jr. "The Government's Point of View on Oil Prospecting & Development of March Public Land" Forum "Mountain Building Chronology and the Nature of the Geologic Time Scale" By Dr. Edmund M. Spieker, Ohio State University "Pleistocene Glaciation in the San Joaquin River Basin, Sierra Nevada" By Mr. Joseph Birman, Occidental "The Effect of Near Surface Velocity Gradients" By Walter A. Garvin "Seismic Exploration on the Malispina Glacier" By Clarence Allen of April Cal Tech "Weather Forecasting" By Mr. A. K. Showalter, U. S. Weather Bureau June "History of Uses of Petroleum in California and Current Tidelands Exploration" By Milton W. Lewis "Exploration and Production in Saudi Arabia" By Phillip C. McConnell

July "Playa Lakes" By Mr. Richard O. Stone, U.S.C.

"Organic Geochemistry and the Formation of Oil" By John H. Hoke

August "Geology of Siberia" By Dr. Paul Goudkoff

September "Geologic History and Structure of the Mohave Desert Region" By Dr. D. Foster Hewett, U.S.G.S.

"Various Types of Land Slides" Forum

entering the section with the

October "Recent Developments in Offshore Exploration" Symposium

"Drilling with air as a Circulating Medium" By Mr. H. E. Radford

November "A Summary of the Geology and Exploration for Gas in the Sacramento Valley" By Dr. Robert D. Ohrenschall

December "Some Theoretical Considerations of Tilted Water Tables" S. T. Yuster

# NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

January 1952 Volume 6

No. 1

## ASSOCIATION ACTIVITIES

SEDIMENTATION IN THE NORTHERN GULF OF MEXICO

The regular luncheon meeting of the L.A.

group was held December 6th at the Rodger
Young Auditorium.

Dr. Francis P. Shepard, Director of Submarine Geology of La Jolla Institute of Oceanography and also the Director of A.P.I. Project number 51, reported on the preliminary results of this study.

In November 1950 the American Petroleum Institute awarded a contract to the University Institute awarded a contract to the University of California to investigate sedimentary environments in the northern Gulf of Mexico. After reconnaissance of the area which included flights along the coast and conference with an Advisory Committee, headed by Mr. A. R. Denison, field programs were developed and work initiated along the Texas coast near Rockport and along the east side of the Mississippi Delta. A separate field party has been organized for each area so that the two groups can have more time to study results between field seasons. In addition to routine analyses, the collections of sediment and water are being collections of sediment and water are being investigated by specialists in the fields of petrology, clay mineralogy, chemistry, mass spectrography, biology (including study of macroorganisms, Foraminifera, ostracods and pollen) bacteriology, and physical oceanography. It is hoped that this wide approach will provide many criteria for the use of petroleum geologists in identifying the environment of deposition indicated by well cores and by outcrops of sedimentary rock.

So far as results can be deduced from preliminary studies of the first field season at Rockport and from the preliminary reports collections of sediment and water are being

preliminary studies of the first field season at Rockport and from the preliminary reports sent in from the field during the current operation in the Mississippi Delta area, the sediments in the various environments of deposition are very distinctive. The faunas, especially the Foraminifera, can be readily classified according to their environment. The grain-size of sediments is distinctly related to such environmental conditions as exposure to wave action, strength of currents, depth of water and nearness to river mouths. The mineralogy of the sediments indicates differmineralogy of the sediments indicates differences between direct sources from rivers and longshore transport of the sediments. The diagenetic effects in the bays appear to be different from those out in the open ocean and distinctly different Eh conditions are found distinctly different Eh conditions are found in bays with varying rates of deposition. These rates are being determined in part by comparison of old detailed charts with present depth conditions. The barrier islands, which appear to be sinking along much of the Gulf coast, provide a type of deposit which may yield future oil traps. The distinctive characteristics of these islands with their beaches, dunes, and lagoon-facing marshes and lakes are being determined.

# SALINAS VALLEY MEETING

The Salinas Valley Geological Society met at the Paso Robles Inn on Nov. 27, to discuss in more detail the papers presented at the fall meeting of the A.A.P.G. which dealt with Salinas Valley, Huasna Valley and the Santa Cruz Moun-

Tom Baldwin, Jergins Oil Co., presented his paper on the Santa Cruz Mountains and emphasized his belief that there was continuous deposition across the San Andreas fault during Miocene and across the San Andreas lault during Miccone and Plicocene time with a measurable displacement along the fault of approximately a quarter of a mile. He also indicated by use of isopach maps that maximum deposition in Eccene time was imthat maximum deposition in socene time was immediately west of San Andreas fault, whereas in Pliocene time the center of the basin had shifted west near the present sea coast.

John Kilkenny, Union Oil Co., and John Fackler, Jergins Oil Co., discussed a regional section across Salinas Valley through San Ardo

oil field. Fackler pointed out that structure plays a minor role in accumulation in the field as the tilted water table has more structural relief than the gently folded beds.

Hans Ashauer, The Texas Co., summarized the stratigraph of the Salinas Valley by stating that all sands younger than lower Mohnian stage might be referred to as Santa Margarita sands; sands of lower Mohnian and Luisian age be termed Monterey sands; and the name Vaqueros be restricted to sands older than the Relizian Sandholdt shale. This terminology met some disagreement in smuch terminology met some disagreement inasmuch as this classification would put the Lombardi and Aurignac sands into the Santa Margarita group.

# PANAMINT RANGE FIELD TRIP

Some 50 frost-bitten paleontologists and geologists assembled at Stovepipe Wells, Death Valley, at 6 A.M. on December 8 for the SEPM field trip to the Quartz Spring area, Panamint

Range.

Led by Dr. James F. McAllister of the U.
S. Geological Survey, who will soon publish a
report on the area, the caravan was able to examine rocks of Cambrian, Ordovician, Silurian, and Devonian age by lunch time. Hardier members of the group after lunch mushed up the section through the Mississippian and onto the

Pennsylvanian.

The section at Quartz Spring is significant to Great Basin geologists because it is the connecting link between the Goodsprings

Newada and the Eureka sec section of southern Nevada and the Eureka section of east-central Nevada, and is one of the two places in southwestern United States where Lower Devonian rocks are known. The rocks are very similar to those currently being drilled for oil in eastern Nevada and western Utah. Printed, detail, columnar sections, cross sections, and a geologic map were distributed through the courtesy of the Geological Survey.

# SEPM PROGRAM

University of Southern California will be host for the January meeting, Monday the 14th at 7:30 P.M. in Room 133 Founders Hall. Dr. Orval Bandy and Dr. K. O. Emery have arranged an interesting group of papers. W. R. White, Paleontologist with The Texas Company will present "The Capistrano Formation"; Dick Stone, graduate student in geology at USC will discuss "Playa Sediments"; and J. E. Holzman, Geologist with the Shell Oil Company will present "The Submarine Geology of Cortez and Tanner Banks". University of Southern California will be

# EXECUTIVE COMMITTEE, PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Homer J. Steiny Harold Sullwold Rufus M. Smith Frank B. Carter Mel Will

President Vice-President Secretary\_Treasurer Past\_President San Joaquin Representative

# PACIFIC PETROLEUM GEOLOGIST

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Next Deadline Jan. 28, 1952

## NATIONAL MEETING PLANS UNDERWAY

In 1952 the Pacific Section, for the fourth time in its career, will have the honor and pleasure of serving as host for another annual joint meeting of the American Association of

joint meeting of the American Association of Petroleum Geologists, the Society of Exploration Geophysicists, and the Society of Economic Paleontologists and Mineralogists.

Preliminary work for the convention to be held at the Biltmore Hotel, Los Angeles, on March 24-27, 1952, is in full swing. The Arrangements Committee appointed last June and chairmen of the subcommittees are listed below:

# A. A. P. G.

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Homer Steiny Tide Water Asso.Oil Company 891 Pacific Elec.Bldg. 610 So. Main Street Los Angeles 14, Cal. Finance

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S.E.P.M.

#### General Chairman

K. O. Emery University of Southern California University Park Los Angeles 7, California

# AIME MEETING

Mr. Read Winterburn, Chief Petroleum Engineer, Union Pacific Railroad, spoke on the East Los Angeles oil field at a dinner meeting on December 13 at Rio Hondo Country Club.

The East Los Angeles oil field is located about two miles southeast of the Miocene producing area of the Montebello oil field. The discovery well, Richfield-Union Pacific well No. UPI was completed in February 1946 from the interval 8560-8608 feet after being plugged back from a total depth of 9629 feet.

The structure in the producing formation is a dome with about 70 feet of closure at the top of the UP No. 1 zone. The closure decreases upward and in Repetto beds the structure is expressed only as a terrace with no ture is expressed only as a terrace with no reversal to the north. Faults of small throw are believed to bound the field on the east and west although control for these is not conclusive. They are believed to be present partly because of dry holes drilled on either

side of the producing area which are as high structurally as some of the producing wells. Since the discovery well was drilled, seventeen producing wells have been completed in four separate zones in the upper Miocene. The four producing zones are the Vail, UP 3, 8400' and UP 1. A fifth (9200') zone was proven to be productive of small amounts of oil in one well.

The porosity of the producing sands varies from 18 to 22 percent and the permeability from 40 to 1500 millidarcies.

## WILDCAT JINKS

About 1800 riotous oil men attended the annual "Christmas Jinks" of the Western Oil and Gas Association at the Biltmore Bowl on Dec. 12, 1951. After a preliminary priming at various bars and cocktail parties, the impatient crowd poured into the Bowl and overflowed into the "dungeons" to consume an excellent most cellent meal.

cellent meal.

Henry Salvatori, Chairman of the Wildcat Committee, opened the program with an address of welcome. The wildcat Committee then presented their Wildcat Drama entitled, "Pass in Review"; a masterpiece written and directed by W. H. Geis, consultant. The locale of this effort was a waxworks museum, inhabited by replicas of numerous prominent petroleum executives and characters, which were portrayed by other characters in the oil industry.

Bill Pemberton and Wendell Jones enacted the roles of visitors to this house of horrors

Bill Pemberton and Wendell Jones enacted the roles of visitors to this house of horrors and put the inmates thru their paces. The dummies' efforts opened with a joint singing of the Wildcat song. Homer Steiny in the role of Ed Hamner sang a parody on "Deep in the Heart of Texas". The "Marfak" song by Bill Eggleston in the role of Torrey Webb, and the "7600" poem by Bill Geis in the role of Cy Rabel were highlights of the program. The dummies concluded by singing the "Toolpusher" song which pointed out the pitfalls which might be encountered in ascertaining the depth of a well. of a well.

# PERSONAL ITEMS

#### IN MEMORIAM Robert W. Fowler

The many friends and associates of Robert W. Fowler, District Petroleum Engineer for Superior Oil Co. in Bakersfield, are grieved to learn of his death on December 7. He was killed early in the morning when his car collided with a truck on the Shafter Highway. Bob was only 36 and left six children, the oldest 13 and the youngest a few days old. He was a graduate of U. C. with a B. S. degree in Petroleum Engineering. He has been with Superior since 1945 and very active in the API. Bob was absolutely tops as a Pet. Eng. and everyone thought him a swell fellow of fine character.

Doug D. Hastings, recently with Standard's Salt Lake office, will be their new Supervisor of the Sacramento Area with offices to be set up around the first of February. The new Supervisor of the Northern Coastal Area is Alex Tarbet, well known in Northern California circles, who will open offices in Salinas around the same time.

Lee Jordan, Bankline, gave up his bachelor status for one of married bliss Dec. 22, in Lindsay, Calif. The lucky girl is school marm Kathryn Houstin of Bakersfield. Joe Parmenter held up the groom.

Pat Wright, graduate of T.C.U. '46, is the new scout for Superior in Bakersfield.

Floyd Johnson, of Honolulu Oil Co., is back in Bakersfield for the winter, and to think he came back from the Morman State with only one wife.

Ed and Connie Stinemeyer, a Shell family, welcomed a second daughter, Kathryn Marie, on Dec. 6, weight 7 lbs. 10 oz.

Chet Baker is leaving Richfield Dec. 31 to join the Arabian American Oil Co. as a sub-surface man. He will depart for Beirut, Lebanon around the middle of January for a six week indoctrination course. After that he will go on to Dhahran, Arabia for at least two years.

Tom and Erlene Wootton of Shell Oil Co. have a new son, Tom Montgomery, born Nov. 14, weighing 6 lbs. 15 oz.

A dinner party was given at the Crystal Inn in Bakersfield for De. Gerhard "Jerry" Schumacher by his co-workers in Shell Oil Co. Dec. 13. "Jerry" is retiring at the end of 1951 after 21 years of geology and micro-paleo work for Shell.

Guess Richfield doesn't provide electric blankets for their geologists because John Wiese, Bill Bishop, Jerry Knoles and Walt Record had to leave Nevada and come back to sunny California.

A unanimous vote was cast in the recent elections for the new officers of the Northern California Geological Society group. Charles Cross of Honolulu Oil was elected chairman; Dan Pickrell, Golden Gate Petroleum Co., vice-chairman; and Willard Classen, Redwood City consulant, secretary-treasurer. Charley takes over the reins from Earl Dillon of Tidewater who has very ably held down the office for the past two years.

Bob and Mary Galeski have filed their report of completion on Galeski #6 (Marc Ben. jamin); brought in barefoot 11-28-51.

Orrin "Wang" Wangsness has left his job of scouting with Superior to do geological work for Western Gulf in Bakersfield.

 $\mbox{\sc Hal}$  Hanson is the new scout for Western Gulf in Bakersfield.

John Hazzard, Bill Moran and Gene Borax, who recently returned from a flying trip to Costa Rica, etc., report that Central American rum is as good as ever but deny any knowledge of the situation down there regarding night clubs.

We all extend our deepest sympathy to Tom Dibblee whose father passed away the night of December 18 after a prolonged period of ill health.

Frank Tolman is reportedly making admirable progress at Pottenger's Sanitorium in Monrovia and will probably be back in Bakersfield in a couple of months. We understand that the disposition of certain property Frank has accumulated in his quarters may offer some slight problem. Included are three aquariums complete with aerating machines, a thriving production of infusoria and daphne shrimp (both excellent food for tropical fish), and the fish, which can be used to consume any excess infusoria or shrimp.

The Standard Oil Company has recently been the chief contributor to the growing geological manpower in the Salinas Valley with seven men being stationed in King City at the present time: Clarence Schiesser, in charge of the local office, Tom Gross, Bill Moline and Larry Kinsey; Don Stone and W. J. Pelletier, both geologists, and Ron Ackley, a petroleum engineer trainee, are helping keep up with the Standard corehole program. Incidentally, Kathy Gross presented Tom with a feminine bundle recently, which they named Christine, and Larry Kinsey invaded the state of Wisconsin to grab off one of their loveliest daughters.—Miss Joan Sewell of Oconomowah.

Herschel Driver, a four-week vacation man, stopped at a Baker motel enroute home from the north country. Early the next morning when his car started but failed to move Herschel was most puzzled and later, after a tow job and mechanics analysis, somewhat chagrined to find that with the car but a few feet from his room at the motel the driveshaft had been stolen during the night. It only took three days to get a new one.

President Frank Morgan attended the annual dinner meeting of the Kansas Geological Society in Wichita Dec. 3, followed by dinner meetings of the Rocky Mountain Association of Geologists in Denver, Abilene Geological Society in Abilene, Corpus Christi Geological Society in Corpus on Dec. 4, 5, and 6, then the annual dinner meeting of the West Texas Geological Society in Midland Dec. 7. On each occasion he addressed the members on "The Business of Oil Finding" and discussed Association affairs. On Dec. 8, President Morgan returned, apparently rather well fed, to Los Angeles.

Louis Chappius' many friends will be interested to know that he is recovering from a throat operation at Wadsworth General Mospital. He expects to be there for a while and would be most happy to receive notes addressed to the hospital, Building A-2 West, Sawtelle.

Bob Carlson, Union Oil Company geologist in Sacramento, became the proud father of a baby boy, Christopher, on December 7. This makes the third for the Carlsons. Bob says that the phrase "to sleep like a baby" was originated by some-body without one.

Vetress L. VanderHoof, Professor of Geology at Stanford, will resign the first of the year to join Independent Exploration's staff at Santa Paula. Van will be missed at Stanford where for the past several years his friendliness and dry humor have made his courses popular.

Johnny Curran who has been with General Petroleum in Ventura for five years left January 1 1952 to go with Honolulu as a geologist. Johnny will continue to live in Ventura. Johnny says it looks like he will have to get a boat after all.

John Forman has been selected to take Johnny Curran's place as scout with General Petroleum in the Ventura basin area. John is a graduate of Pomona and has been with General Petroleum since last May.

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RETURN POSTAGE GUARANTEED

Vol. 6, No. 1

## CALENDAR

- Jan. 3, 1952; Thurs., 12:00 noon, AAPG, Pacific Section Lunchson, Rodger Young Auditorium, Los Angeles: Bob Moran, Jr., of Moran Instrument Co., "Surveying in the Persian Gulf Area."
- Jan. 3, 1952; Thurs., 6:30 p.m., CNGA Dinner meeting, Rio Hondo Country Club, Downey: F. C. Riesenfeld and C. L. Blohn, Fluor Corporation, Ltd., "Corrosion in Gas Treating Systems."
- Jan. 7, 1952; Mon., 7:00 p.m., API, Petroleum Engineering Seminar, KCUHS, Visual Aids Auditorium, Bakersfield: E. C. Kartenin, "Causes and Prevention of Corrosion-Surface and Subsurface."
- Jan. 8, 1952; Tues., 7:00 p.m., AAPG, San Joaquin Geological Society, El Tejon Hotel, Bakersfield: John Wiese, "Search for Oil in Nevada."
- Jan. 10, 1952; Thurs., noon, SEG Luncheon, Rodger Young Auditorium, Los Angeles: Representative of Ampex Electric Company, "Tape Recording of Seismic Data."
- Jan. 14, 1952; Mon., 7:30 p.m., SEPM Meeting, Room 133, Founders Hall, University of Southern California, Los Angeles: W. R. White, "The Capistreno Formation"; Dick Stone, "Playa Sediments"; and J. E. Holzman, "Submarine Geology of Cortez and Tanner Banks."
- Jan. 21, 1952; Mon., 7:00 p.m., AAPG, Pacific Section Forum, General Petroleum Auditorium, Los Angeles: Penel Group to be announced, "New Areas Open for Exploration."
- Jan. 21, 1952; Mon., 7:00 p.m., API, Petroleum Engineering Seminar, KCUHS, Visual Aids Auditorium, Bakersfield: Lyle Paine, "Drilling Bit Design and Selection."
- Jen. 22, 1952; Tues., 8:00 p.m., API, San Joaquin Chapter, Bekersfield Inn, Bekersfield: Speakers to be announced, two or three topics to be discussed in the program.
- Jan. 30, 1952; Wed., 7:00 p.m., AAPG. Pacific Section Meeting, General Petroleum Auditorium, Los Angeles: Distinguished Lecture, Dr. Edmund M. Spieker, Ohio State University, "Mountain-Building Chronology and the Nature of the Geologic Time Scale."
- Jan. 31, 1952; Thurs., AAPG, Coast Geological Society, Santa Barbare: Distinguished Lecture, Dr. Edmund M. Spieker.
- Feb. 1, 1952; Fri., AAPG, San Joaquin Valley Geological Society, Bakersfield: Dr. Edmund M. Spieker.



Mr. Fred R. Neuman 381 E. 4th St. Chico California

# NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 6

February 1952

No. 2

# ASSOCIATION ACTIVITIES

#### S.E.P.M. MEETING

Three interesting papers were presented at a meeting of the S.E.P.M. on January 14 at U.S.C.

Dick Stone of U.S.C. gave an illustrated talk on the classification of playa lakes of Southwest California. Playas may be classified on the basis of their surface character and the depth to the water table as follows: 1) Dry, with water table below 10 feet; 2) Moist; 3) Compound; 4) Crystal body; and, 5) Artificial.

The surface features of playas include mud cracks, salt surfaces, playa scrapers and furrows. The type of sediments, pH, lime content and soluble salt content of playas were also mention-

Bill White of The Texas Company described the stratigraphy of the Capistrano formation exposed in the Capistrano embayment between Dana Point and San Clemente. The Capistrano formation may be divided into two lithologic units separate. may be divided into two lithologic units separated by a disconformity. The upper member is a yellow-brown siltstone carrying a fauna of upperlower Pliocene age correlative with upper Repetto beds. The lower unit is a dark brown sandstone containing limestone beds and concretions. Foraminifera, although rare and limited to thin zones, carry a fauna of upper Miocene Delmontian age. This member resembles the Malaga mudstone of the Palos Verdes Hills. Faulting and Pleistocene terraces obscure the nature ing and Pleistocene terraces obscure the nature of the contact between the mudstone and underlying formations in the area studied.

Mr. Jack Holzman of Shell Oil Company discussed Cortes and Tanner Banks located 90 cussed Cortes and Tanner Banks located 90 nautical miles west of San Diego, California. The Banks have a minimum depth of  $2\frac{1}{2}$  fathoms in an area of 230 square miles. There are no greater depths than 150 fathoms. An extensive terrace was cut in the middle Miocene sediments of the bank at a time when the sea stood at a relatively lower level. Presumably this occurred during the Pleistocene glacial epoch. The characteristics and distribution pattern of the thin veneer of recent sediments are controlled by the topography, depth of water and current by the topography, depth of water and current activity. They indicate that there is little or no present day sediment accumulation on the bank. Sampling reveals several topographic provinces which extend above the terrace level to be composed of basalt porphyry. No material of the Franciscan series was recovered from the area.

## DUES!!

As of this date there are only 596 members of the Pacific Section in good standing. This compares very unfavorably with 795 paid memberships of last year; particularly since many new members in this region have been accepted nation—

ally during the past year.

Since the functions of the Pacific Section (the newsletter, research committee activity, and convention activities, to name a few) will become curtailed unless there are adequate funds in the Treasury, PLEASE, you geologists who for one reason or another are tardy, send your check for two dollars to Pacific Section A.A.P.G. c/o Rufus Smith, Secretary Treasurer, Continental Oil Co., 601 West 5th Street, Los Angeles 17, California.

## BAKERSFIELD MEETING

At the regular meeting of the San Joaquin Geological Society on January 8th, John H. Wiese of Richfield Oil Corp. discussed "The Search for oil in Nevada", illustrating his talk with Kodachrome slides. The meeting was held at the El Tejon Hotel in Bakersfield.

Tejon Hotel in Bakersfield.

Exploration for oil and gas has been centered in three areas in Nevada; 1) the Reno-Fallon area, where Tertiary non-marine beds were drilled as early as 1907, 2) the Arden Dome, southwest of Las Vegas, on which several shallow wells were drilled in the last decade, and 3) the Elko-Eureka-Ely area of east-central Nevada, which has been the scene of considerable exploration for the past 2 or 3 years. In this latter area a thick section of Paleozoic sediments, this fly carbonates has been folded and to a chiefly carbonates, has been folded and to a lesser degree faulted into structures which may prove to be traps for oil and gas. Though most of these structures are small compared with those of the Rocky Mountains, there seems to be abundant evidence for the presence of satisfactory source and reservoir beds at depth.

Of the dozen or so wells drilled to date in eastern Nevada, only three can be considered conclusive tests, and many more must be drilled before an accurate appraisal of the area can be made.

## S.E.G. LUNCHEON

Mr. Harrison Johnston of Ampex Electric Corporation spoke before approximately 50 members January 10th on the subject of magnetic tape recording of seismic data. The recording is made on a cellulose acetate tape which is

is made on a cellulose acetate tape which is covered with a magnetic oxide coating.

The advantages of tape recording are:

1. Permanence. 2. Fidelity. 3. Signal to noise ratio. 4. Since the record is taken without filters or mix, any combination may be used in the playback until the best results are obtained. tained.

tained.

Disadvantages are: l. Costs of recording unit which necessitates detector and photographic units at home office. 2. Since a visible record is not obtained in the field, quick decisions as to hole depth and charge are impossible.

Mr. Johnston observed that this problem was in the process of being solved by the construction of a lightweight oscilloscope unit for field

use.

## NATIONAL CONVENTION

The general pattern for the joint meetings of the A.A.P.G., S.E.P.M., and S.E.G. March 24-27 has been announced: Monday, March 24th is to be devoted to the business committee meeting, registration, a full day technical session of the S.E.G. and a S.E.P.M. full day field trip in the Los Angeles Basin; Monday evening, the technical session of A.A.P.G. will begin.

Tuesday, March 25th is the joint session day with presidential addresses, presentation of honors, and technical papers of common interest to the three societies.

Wednesday, March 26th the three societies meet in separate full day sessions and Wednesday evening an A.A.P.G. research symposium and panel discussion will be held. The general pattern for the joint meetings

discussion will be held.

Thursday, March 27th the societies will again meet in separate session and the convention will close Thursday night with the annual dinner dance and floor show.

# EXECUTIVE COMMITTEE, PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Homer J. Steiny Harold Sullwold Rufus M. Smith Frank B. Carter Mel Hill President
Vice-President
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Dick Thorup

## CAL TECH TALK

Dr. J. V. Harrison, professor of geology at Oxford and now visiting professor at the University of Ohio and formerly with the Anglo-Iranian Oil Company, spoke to the Cal Tech Geology Club the afternoon of January 25, 1952 on the geology of Iran.

He and his partner mapped sixty thousand square miles along the east side of the Persian

He and his partner mapped sixty thousand square miles along the east side of the Persian Gulf. This work was done in eight years with plane table and range-finder (an excellent tool). He lucidly described a Mesozoic and Cenozoic calcareous and terrigenous section, thinning toward Arabia, with strong post lower Cretaceous and Pliocene diastrophisms, and with simple folds on the southwest and overturned folds and eastward dipping thrusts on the northeast. He tied these sedimentary facies and this northwestward trending belt of deformation into the Alps and Himalayas.

Himalayas.
Two little described features of interest were the "salt glaciers" and the "flap structures" The low rainfall has allowed the preservation of these "glaciers" and gravity slump has caused the overturn of limestone members on the flanks of anticlines to produce the "flaps".

or anticlines to produce the "liaps".

Dr. Harrison had just returned from a three day trip into the Mojave Desert with Foster Hewitt and consented to give this unscheduled talk just before returning to Ohio. Far too few local geologists were in attendance. It is hoped that this excellent speaker will return to Southern California and tell many of us about the oil geology of Iran.

## SEPM FIELD CONFERENCE CASTAIC BASIN

President Tom Rothwell has another excellent field trip scheduled for February. Arrangements have been made by Bob Herron and his committee, Bill Corey and Bob Nesbitt, for a field trip in the Castaic Basin. The trip has been arranged to compare the geologic section on the North and South sides of the San Gabriel fault. A symposium is being prepared by a group of geologists who have mapped in this area. Dr. Dick Jahns, of Cal Tech, and Dr. John Crowell, of U.C.L.A. will lead the symposium.

Meet at 8 A.M. Saturday, February 16th, at the location of the Humble 011 & Refining N.L. & F. -C- No. 1 well, one-half mile north of the beacon. Bring your lunch, the bear will be

Remainder of the SEPM program for the Spring promises to be as interesting. In March there will be the Los Angeles Basin field trip in connection with the national convention. This tour will visit several localities of paleontologic interest. In May a field trip to the type Vaqueros section is being arranged by Dick Thorup.

## LOS ANGELES FORUM

One of the largest attendances in recent months turned out January 21 to hear a panel of experts discuss "New Areas Open for Exploration" or "The Role of the Geologist in Selling the Oil Industry to the Public". The panel assembled by Tom Folsom, forum chairman, included Dr. Cordell Durrell, Mr. Howard Pyle, Mr. Joseph Jensen and Mr. Basil Kantzer. Mr. Don Sweeney acted as moderator.

It was Dr. Durrell's thesis that the field geologist is the ambassador of the oil industry. His conduct in the field should be exemplary as often he is the only contact between the land owner and the employer. Subsequent leasing is often facilitated by good will created by the field geologist.

field geologist.

Mr. Pyle and Mr. Jensen reaffirmed the necessity for geologists to get behind the effort to sell the industry to the public and speak out for free enterprise. For instance, surveys have shown that over 50 percent of the public do not believe the oil industry is competitive.

Mr. Kantzer discussed the Oil-Information Committee, an organization formed to help strengthen the faith of the American people that their best interest as well as those of the nation in peace or in war are best served by competitive, privately managed oil businesses.

The O.I.C. has made available several

The C.I.C. has made available several means for oil men to further their efforts as ambassadors of the industry. A panel of speakers from many fields is available for public or club meetings. Movies on many phases of the oil industry and publications for science courses in schools also are available for distribution. Information may be secured from Western Oil and Gas Association, 510 W. 6th Street, Los Angeles.

#### SURVEYING IN THE PERSIAN GULF

Mr. R. B. Moran, Jr., of Moran Instrument Co., described at the first luncheon of the new year a method of surveying that has been in use for over a year in the Persian Gulf area. The new survey equipment is similar in

The new survey equipment is similar in some respects to Shoran and other precision radar systems which were developed by the military during the last war. Recent developments have made it possible to reduce the weight and complexity of this equipment into compact, rugged units which are practical for field work. These instruments measure distance accurately by observing the time required for a pulse or burst of radio waves to travel to a distant beacon or repeater station and return.

The system consists of a master station

The system consists of a master station and one or more beacon stations. Each station is capable of both transmitting and receiving. A pulse of radio waves is transmitted by the master station, received and automatically retransmitted by the beacon, and received again by the master. A small instrument at the master station, known as the Indicator, measures the time taken by the pulse to make the round trip. While the Indicator really measures time, it gives the distance directly in feet. The reading may be made visually, or a camera may be used to photograph the reading.

In actual field work, it is often desirable to be able to measure the distances from a given station to two or more points. Such a sai

In actual field work, it is often desirable to be able to measure the distances from a given station to two or more points. Such a set of measurements can be made in quick succession by placing a master unit at the given station, and beacons at the other points. In order to read the distance from the master to any one of these points, it is necessary that only one beacon at a time be permitted to re-transmit the signal from the master, and, of course, the observer must know which beacon is replying. To accomplish this, a small pushbutton panel known as the beacon selector is included in the master station. When any one of these buttons is pressed, the corresponding beacon will operate, and the distance to it can be read immediately. The distance to each other beacon is then read by pushing a corresponding button.

Efficient field work calls for maximum mobility and a minimum of set-up time. Any type of transportation suited to the terrain may be used for these instruments and they may be shifted quickly from one kind of transportation to

another whenever advisable.

# PERSONAL ITEMS

Nat MacKevett, Shell geologist in Sacramento has been pricing bullet-proof houses since he came home one night to find that someone had been taking pot shots at his front room. Is Shell's competition getting desperate?

The Standard Exploration Department in Taft, consisting of Tony Paap, Carl Bahr, Lloyd Owens, Marshall Ayers, and Robert Lindbloom, has been transferred to Bakersfield. New offices have been opened in the Professional Bldg. to handle the over-flow of Geologists.

Bob Scott, of The Texas Co., has been transferred from the L.A.Basin to the Bakers-field office.

Warren Blazer, grad of City College, N.Y., has joined the Superior Oil Co's Geological Dept., Bakersfield.

Nat Charnley left Utah to spend the winter working out of the Amerada Bakersfield office.

Don Didier has transferred from L.A. to Bakersfield for Ohio Oil Company.

L. C. Lovely, M.A. from Stanford, and John Wagner, M.A. from UC, have joined the Union staff in Bakersfield.

Pete Woods who has spent the past two years in Mexico for American-Independent, and the two years prior in the Rocky Mt. region, has been seen in Bakersfield renewing acquaint-ances.

Everett Pease's daughter Linda won first place and several prizes on a TV show as an acrobatic contestant.

Cliff C. Church, senior paleontologist for Tidewater, has been elected National President of the Society of Economic Paleontologists and Mineralogists for the coming year. Congratulations Cliff!

Harry Stuveling, Shell scout for the northern coastal district and now making his home in Santa Cruz, is eagerly awaiting that overdue Northern California sun and some beach weather.

Willard Classen, Redwood City consultant, has been appointed Marshall of the Shrine Islam Temple Divan. This honor was bestowed January 10.

Tidewater Associated Oil Co. has announced that Earl Dillon has been promoted to assistant vice president in the exploration department.

Hal Fothergill, Union geologist, has sold his Redwood City home and has moved to Santa Maria. Frank Noble will miss Hal's companionship as he tramps the Santa Cruz mountains alone.

The Pacific Section wishes to extend its sympathy to Olaf P. Jenkins, Chief of the Division of Mines, whose beloved wife, Dorothy, passed away on January 18th. Mrs. Jenkins will be remembered always for her many literary contributions, most recent of which are in the Geologic Guide Books, Bulletins 141 and 154.

Reports indicate that Secretary-Treasurer Rufus Smith is going all out to improve the financial condition of the Pacific Section but one method in particular hasn't been entirely successful. It seems the Pacific Section check he didn't sign bounced.

E. F. (Mac) McIlvain, well known core chaser with Richfield in the Los Angeles Basin and southern coastal area was recently confined to a Long Beach hospital by serious illness. We were happy to hear a late report which has him in much better condition.

Don Gillespie, formerly with Wilshire, is with Shell in Ventura.

Tom Barrow, with Humble in Chico since early last summer, has been transferred to Los Angeles. Andy Vidos is now working out of Humble's new temporary offices at 1107 Truxton Ave., Bakersfield.

The Union Oil Co has announced the following promotions effective January lst: John Hazzard will be assistant to the Chief Geologist, Lon Cartwright, in charge of

field geology.

Stan Wissler will be assistant to the Chief Geologist in charge of Regional Geology.

Don Grinsfelder, Richfield Geophysicist in L.A., was the very surprised and very proud father of twin boys, David and Robert, who arrived Jan. 27th., weights 4 lbs, 10 oz and 4 lbs, 2 oz.

Stan Kriz, Standard, on his recent vacation, flew to England to visit relatives, thence to Paris and highlighted his trip by a visit to Vienna and some skiing in the Austrian Alps. How did he do it? -  $\rm He^is$  a batchelor.

Earl H. McKnight, a recent graduate and former football player from the University of Utah, is now employed as a geologist with Standard in the Southern California District.



They held the plane long enough for Sam Stewart of Richfield(last years PPG editor) to start his journey to Calgary on the day scheduled. He expects to be back for the AAPG convention this spring. Ray Pearson will come from Long Beach to take Sam's place in the L. A. office. Hope Sam didn't hit that 30° below zero and 100 mph wind reported in Southern Alberta the day he left.

Bob and Emy Jean Maynard are the very proud parents of 6 lb. l oz. Elizabeth who arrived January 5th.

Johnny Huber, in Los Angeles three months from Elko, is now Assistant Western Regional Geologist for Continental.

Continental's offices in Bakersfield now have, in addition to Bud Sherman and Dan Nolan, Dick Sanders and Phil Patten, recently transferred from Salt Lake City.

M.E. (Shorty) Trostle, party chief of G.S.I. at Fresno, has left Denver to assume his new duties as supervisor under Bob Dyk, manager of G.S.I.'s Rocky Mountain Division. Bob is becoming an ice skating expert, we hear, but so far has managed to stay off skis.

Bob Williams has left his consulting business in Santa Barbara to become Chief Geologist for Coronet Oil Company in Midland, Texas.

Wilshire has closed their Fillmore office. Frank Reynolds is now District Geologist in Los Angeles, Bill Emerson is with Ed Pickett in Bakersfield, and Tom Macleod and Jim Lewis have gone to the Los Angeles office.

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"Guidebook of the South and West Sides of the San Juan Basin, New Mexico and Arizona." October, 1951.

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"Arizona Wildcat Checks New Area." Philip C. Ingalls. p. 117.

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Next Deadline Feb.25

# PACIFIC PETROLEUM GEOLOGIST PACIFIC SECTION. A.A.P.G. ROOM 932

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Vol. 6 No. 2

# CALENDAR

- Feb. 4, 1952; Mon., 7:00 p.m., API, Petroleum Engineering Seminar, KCUHS, Visual Aids Auditorium, Bakersfield: Stanley R. Beck, "Paleontology and its Part in Oil Exploration."
- Feb. 7, 1952; Thurs., 12:00 noon, AAPG, Pacific Section Luncheon, Rodger Young Auditorium, Los Angeles: Joe Birman, "Glaciation in the San Joaquin River Basin."
- Feb. 7, 1952; Thurs., 6:30 p.m., CNGA, Dinner Meeting, Rio Hondo Country Club, Downey: J. G. Wilson, Shell Oil Company in New York City: "Attack of Hydrogen on Steel in Refinery Equipment."
- Feb. 14, 1952; Thurs., 12:00 noon, SEG, Luncheon, Rodger Young Auditorium, Los Angeles: Walter Garvin, "Pulse Propagation through the Weathering."
- Feb. 14, 1952; Thurs., 6:30 p.m., AIME, Junior Petroleum Dinner Meeting, Rio Hondo Country Club, Downey: Program to be announced.
- Feb. 16, 1952; Sat., 8:00 a.m., SEPM, Field Conference in the Castaic Basin, meet at Humble Oil and Ref. Co. well, Newhall Land and Farming No. C-1: Bring lunch, beer will be served.
- Feb. 18-21, 1952; Mon.-Thurs., AIME National Convention, New York City, N.Y.
- Feb. 18, 1952; Mon., 7:00 p.m., AAPG, Pacific Section Forum, Edison Building Auditorium, Los Angeles: Leroy G. Snow, USGS; Paul B. Witmer, Mgr., Bureau Land Management; and Harry Grace, Fire Control Officer, Angeles National Forest, "The Government's Point of View on Oil Exploration and Development."
- Feb. 18, 1952; Mon., 7:00 p.m., API, Petroleum Engineering Seminar, KCUHS, Visual Aids Aud., Bakersfield: Paul E. Lehr, "Pumping Equipment Design."
- Feb. 19, 1952; Tues., 7:00 p.m., AAPG, San Joaquin Valley Geological Society, El Tejon Hotel, Bakersfield: Frank A. Morgan, "Business of Oil Finding and Association Affairs."
- Feb. 19, 1952; Tues., 8:00 p.m., API, San Joaquin Valley Chapter, Standard 11-C Camp, Taft: Speaker to be announced. NOTE: A dinner in connection with the meeting, open to entire membership, will be held at the Petroleum Club, Taft, 6:00 p.m.



Mr. Fred R. Neuman 381 E. 4th St. Chico California

# NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 6

March 1952

No. 3

# ASSOCIATION ACTIVITIES

## LOS ANGELES FORUM

A panel of speakers was arranged by Forum Chairman Tom Folsom to discuss "The Government's of Public Land" for the forum meeting held on

February 18th.

Mr. Paul B. Witmer, Manager, District Land Office, opened the discussion with a review of leasing of lands in the Public Domain. There are approximately eight million acres of Public Domain land in Southern California that are open to oil and gas lease application. The minimum amount of land for filing is forty acres unless a section has been subdivided into lots or tracts. A maximum of 2560 acres is permitted in one application as long as a total of 15,360 acres is not exceeded in one state.

Before filing, an applicant must check the records or engage the services of some qualified person to do so. The District Land Office has no lists or maps other than reference plats and office records that enable the applicant to locate the land, nor do they have the personnel to assist

in checking the records.

A ten dollar filing fee is required with each application and fifty cents an acre is levied for the first year's rental. There is no rental charge for the second and third years, providing there is no discovery in the vicinity, but a charge of twen-ty-five cents an acre is made for the fourth and

fifth years.

In comments following his talk, Mr. Witmer indicated that he is striving to make Land Office records more readily accessible to the public.

Mr. Harry Grace, Fire Control Officer, Angeles National Forest, reviewed the functions and policies of the Forest Service. Some of the objectives cies of the Forest Service. Some of the objectives of his department are 1) furnish recreational facilities; 2) control hunting; 3) administer grazing land; 4) sell timber. Perhaps the function most affecting the oil industry, however, is watershed management. Protection of watersheds is perhaps the primary reason for withdrawal of land from the public domain. When oil and gas leases are issued in National Forests, requirements must be met in regard to grading and maintaining roads, locating sumps, and protecting forests from fire.

Mr. Harry Murphy, Oil and Gas Leasing Branch, U.S.G.S., concluded the program with a summary of the functions and duties of his department. The Oil and Gas Leasing Branch supervises operations for the production and development of oil and gas

from leases on Federal, Indian, Acquired and certain Naval Petroleum Reserve lands. This involves approval of development and operating plans, well spacing pattern, and general operating procedures. The office maintains well and production records for engineering studies and encourages improved techniques for conservation of reservoir energy and increased recovery. Small operators not having the benefit of a technical staff may look to the Oil and Gas Leasing Branch for assistance in engineering problems.

## DISTINGUISHED LECTURER

Speaking to the groups in Los Angeles, Santa Barbara, and Bakersfield, Dr. Edmund M. Spieker, Chairman of the Department of Geology, Ohio State University, developed his very interesting thesis which he titled "Mountain Building Chronology and the Nature of the Geologic Time Scale."

Beginning his talk by reference to a chart on which the types of evidence for dating Orogenic Movements were listed:

A. Stratigraphic Evidence

1. The angular unconformity
2. Sedimentation effects
3. Tanana activity

Igneous activity B. Radioactive dating

C. Geomorphic evidence.

Dr. Spieker put forth the fundamental question as to whether orogenic movements have been episodic or continuous.

Special attention was paid to the subject of angular unconformity and the following points were made in support of continuous orogenic movement rather than episodic:

(1) Unconformities where very tightly folded beds are overlain by relatively undisturbed horizontal beds are rare in terms of world wide distribution.

(2) Unconformities are most common in the

marginal belts of basins.

(3) Folded unconformities are rare.(4) An angular unconformity does not prove episodic movement but may represent only a change in rate of movement of continuous orogeny.

It was pointed out that although continuous

It was pointed out that although continuous deposition is known in many places from the pre-Cambrian into the Paleozoic; from upper Paleozoic into the Mesozoic; and from the upper Mesozoic into Tertiary; the strong coloring of geologic thought caused by the adoption of a time scale in 1841 causes some authors to place "disconformities"

1841 causes some authors to place "disconformities" in a continuous section merely because it is felt the "Applacian Revolution" or the "Rocky Mountain Revolution" must be reflected in some way in that section. Dr. Spieker recommends the word "Revolution" be stricken from geologic thought.

To evidence how strongly the ideas of episodicorogeny and wide spread "profound unconformities" have effected geologic thought, Dr. Spieker cited cases where practically identical genera have been given different names merely because one type specimen was obtained from Cretaceous and the other type from Eocene. Naturally when tabulated on a type from Eccene. Naturally when tabulated on a frequency occurance chart a strong break separates

the Mesozoic from the Tertiary.

Dr. Spieker does not recommend abolition of the geologic time scale but strongly points out that it should be used with knowledge of its shortcomings.

#### S.E.P.M. FIELD TRIP

February 16th the hills around Castaic resounded with learned debate over the lateral slip component of the San Gabriel fault. The S.E.P.M. component of the San Gabriel fault. The S.E.P.M. with cooperation of the weatherman, presented one of the most stimulating field trips the local geologists and paleontologists have enjoyed in several seasons. The enjoyment was in no way diminished by the encouragement offered by the several service companies whose names were listed on the pick-up truck that was waiting at Taylor-camp ground and which followed the afternoon tour.

An excellent summary of salient geologic pro-

An excellent summary of salient geologic problems was presented at various stations on the tour by John Crowell, Bill Corey, Otto Hackel, and Dick Jehns. Itinerary and summary geologic notes on the trip are again being printed and may be obtained from Jim Cowell, Shell Oil Company, Box 691, Ventura, for 50 cents.

A large vote of thanks is due Bob Herron and his Arrangements Committee. Thanks are due also to the several geologists who went along "for the ride" on the preview run. They found themselves elected as "voluntary" road repairmen.

# EXECUTIVE COMMITTEE, PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Homer J. Steinv President Harold Sullwold Vice-President Rufus M. Smith Secretary-Treasurer Past-President Frank B. Carter Mel Hill San Joaquin Representative

## PACIFIC PETROLEUM GEOLOGIST

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Next Deadline March 24

#### ERRATA

In the last issue (Feb. 1952) in the write-up of the S.E.P.M. meeting at U.S.C. it was stated that Bill White said, in discussing the strati-graphy of the Capistrano Formation, "The lower unit is a dark brown sandstone bed containing limestone beds and concretions." This sentence should be, "The lower unit is a dark brown <u>mudstone</u> containing limestone beds and concretions."

# PACIFIC SECTION DIRECTORY

Dan Klemme, Hancock Oil Co, has accepted the appointment as Roster Chairman with the duty of compiling additions or corrections to the Directory.

Paid Up Pacific Section members are urged to send immediately any errata, changes of address, title, or company that have transpired since publishing of the booklet. Likewise, any old or new members of the section whose picture was not published are requested to send a glossy print which conforms if possible to the majority of pictures now published, which will trim to 3/4" x 1". Personal data in regard to college degree, position, company, address and telephone number should accompany the photograph. If a larger size picture is submitted please enclose \$1.00 to defray the extra photographic expense of reduction and copying. All communications should be addressed:

Dan Klemme Paid Up Pacific Section members are urged to

Dan Klemme Hancock Oil Co.
P. O. Box 810
Long Beach, Calif.
the former chairman and "father" of

Art Huey, the former chairman and "father" of the Directory has received information that several other societies in the country are planning to publish a similar directory using the Pacific Section booklet more or less as an example.

#### DAFFYNITION (author unknown)

A geophysicist is a person who passes as an exacting expert on the basis of being able to turn out with prolific fortitude infinite strings of incomprehensible formulae calculated with micromatic precision from vague assumptions which are based on debatable figures taken from inconclusive experiments carried out with instruments of proble-matic accuracy by persons of doubtful reliability and questionable mentality for the avowed purpose of annoying and confounding a hopeless chimerical group of fanatics known as geologists.

# PLEISTOCENE GLACIATION IN THE SAN JOAQUIN RIVER BASIN, SIERRA NEVADA

At the regular luncheon meeting of the L. A. group held February 7th at the Rodger Young Auditorium, Mr. Joseph Birman of Occidental College spoke on San Joaquin River glaciation.

Field work performed during the summers of 1950 and 1951 revealed evidences of multiple Pleistocene glaciation in the drainage basin of the San Joaquin River, on the west slope of the Sierra Nevada. Nevada.

Evidence for the oldest ice advances consists of erratic boulders on drainage divides high above present stream coarses. Lithology of the boulders is markedly different from the bed rock on which they rest.

Younger ice advances are evidenced by well led. lateral, and ground moraines. The defined, lateral, and ground moralnes. The moralnes are in three sets, each set apparently remoraines are in three sets, each set apparently representing a separate ice advance. Basis for separation rests on age relationships as determined by distinguishing differences in weathering of boulders, boulder content of moraines, relative amount of erosion of moraine ridges, and relation of moraines to topography. The three younger ice advances are very tentatively referred to the Wisconsin age of the Pleistocene.

Evidence for two, minor, post-Wisconsin ice-advances consist of moraine ridges near the mouth of the higher cirques and of unstable boulder ramparts just beyond existing cliff glacierettes (perennial snow fields at cirque head walls).

## BAKERSFIELD MEETING

Some 65 members of the San Joaquin Geologi-cal Society gathered at the El Tejon, Bakersfield, February 19th to hear President Frank Morgan address the members on "The Business of Oil Finding# .

"I believe the exploration geologist can do the job, but their work in the future will be progressively more difficult and correspondingly more expensive. The increasing difficulties of the oil finder will be offset to a large degree by technologic improvements. he asserted. It is important that the industry, the government, and the consumming public be increasingly aware of the new cost thinking in oil finding. The business of running out of oil is an old story and I cannot running out of cil is an old story and I cannot understand why it is brought up so often by thinking people. They have always been wrong in the past for the reason that they have failed to give due weight to enterprise, determination, responsibility, and an ever increasing technology."

Homer J. Steiny, Pacific Section President, was the accompanying guest of the evening. Mr. Steiny gave some of the highlights of the coming National Convention.

## S. E. G. LUNCHEON

Approximately 40 members and guests attended a luncheon at Rodger Young Auditorium on February 14, to hear a paper by Mr. Walter A. Garvin, California Research Corporation, entitled "The Effect of Near Surface Velocity Gradients."

The existence of a very low speed surface velocity layer, frequently only several feet thick, is quite common. Velocities in such a layer may be only several hundred feet per second as compared to velocities of approximately 3,000 feet pared to velocities of approximately 3,000 feet per second in what is commonly referred to as the weathering layer. The effect of this abnormally low speed surface layer is to distort the seismic energy returning to the geophones. Mr. Garvin pointed out that if one assumes a simple wave transient to strike the weathered layer, after transmitting the initial energy, the weathered layer would oscillate freely with decreasing amplitude. The frequency of this oscillation would be a function of the velocity gradient in would be a function of the velocity gradient in the weathering. He also observed that the lower the surface velocity the higher the amplitude of the resulting oscillation. Various means were suggested by which this difficulty could be overcome. At the present time, however, no generally applicable and inexpensive methods are in use to combat the effect produced by this low velocity layer.

# CONVENTION NEWS

#### SUNDAY March 23

COCKTAIL PARTY - Biltmore Bowl. All ladies and gentlemen who are register-5:00-6:30 PM ed for convention. MONDAY March 24 9:00-12:00 AM A.A.P.G. Registration and Business Committee Meeting. L. F. Malarin -- "Discovery of the Durham Gas Field, Butte Co., Calif." Louis F. Melchior -- "Geophysical Discovery and Develop-9:00-12:00 AM S.E.G. Papers: ment of the Bayou Couba Dome." Neal Clayton -- "Geophysical Exploration in the San Juan Basin " H. M. Houghton -- "Review of Western Canadian Geophysical Activity since 1948." E. A. Eckhardt -- "Geophysical Activity in 1951." Tentative plans for general "get-to-gether" luncheon in one of the Biltmore 12:00 Noon dining rooms. 1:00 PM S.E.P.M. Field Trip. Afternoon tour of Palos Verdes Hills. 1:15 PM A.A.P.G. Field Trip. Afternoon tour of Wilmington, Long Beach, and Dominguez Fields. 2:00-5:00 PM S.E.G. Business meeting. Paper - clearance delayed.

Maurice Sklar -- "Experimental Well Velocity Results using a Jet Perforator."

D.S.Hughes & J.K. Kelly -- "Effect of Saturation on the Dilational Wave Velocity in Rocks."

M.R.J. Wyllie -- "Procedures for the Direct Employment of Neutron Log Date in Floating Log S.E.G. Papers: of Neutron Log Data in Electric Log
Interpretation.

J.Laurence Kulp -- "Carbon 14 Measurements on Geologic
Samples." "QUEEN FOR A DAY" Telecast at Mutual's Hollywood Studio. For ladies 3:00-3:30 PM registered for the convention. Professor Curt Teichert -- "The Great Barrier Reef of 7:00 PM JOINT PAPER: Australia and Other Reefs of the Australasian Region." A. C. Blackman -- "Bringing People Together."
Harry H. Hillman -- "The Results of Cooperative Safety 7:30 PM S.E.G. Papers: Efforts." John F. Imle -- "A Minimum Accident Prevention Program for the small Geophysical Company."

H. M. Thralls -- "Analysis of Accidents Reported to Accident Exchange Group in 1951." TUESDAY March 25 7:30 AM Editors breakfast in Biltmore Conference Room #7. Rev. J. Herbert Smith -- "Invocation" Howard C. Pyle -- "Address of Welcome Eugene Holman -- "Our Inexhaustible Resources." 9:00-12:00 AM JOINT MEETING: Frank A. Morgan -- "Oil Finding."
Thomas H. Philpott -- "Paleofacies, the Geologist's New Tool." Sigmund Hammer -- "Geophysical Exploration Comes of Age." Presentation of Honors -- S.E.G. Best Paper Award for 1951 -- Recipient to be announced. C. E. Dobbin, Chairman -- A.A.P.G. President's Award --Recipient to be announced. C. E. Dobbin -- A.A.P.G. Sidney Powers Memorial Award -- Recipient - K. C. Heald. Announcements 12:00 Noon Schedules will be available at registration desk at Alumnae luncheons. time of convention. "QUEEN FOR A DAY" Radio Broadcast of previous day's telecast. For ladies. 11:30 AM 2:00-5:00 PM Max W. Ball -- "The Geologist and the Public." JOINT MEETING: Max Steineke and R. A. Bramkamp -- "Mesozoic Rocks of Eastern Saudi Arabia." N. E. Baker and F.R.S. Henson -- "Geological Conditions of 011 Occurrence in Middle
East Fields."

B. B. Weatherby -- "Uses and Abuses of the Seismic Method."

Francis P. Shepard -- "Shallow Water Sediments of the Northern Gulf of Mexico." S.E.P.M. "Scrolls to Founders" dinner at Biltmore Music Room. 7:00 PM

"THE DRUNKARD" -- Theater Party at the Theatre Mart -- House reserved

for joint groups.

8:30 PM

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nuesday Marcon als (cont.
9:00-12:00 AM
                  S.E.G. Papers:
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Joseph J. Graham -- "Miogypsina in California." C. C. Church -- "Foraminifera from the Franciscan Calera Limestone."

Hans E. Thalmann -- "Twenty Years of 'Foraminiferal Statistics'." Hans E. Thalmann -- "Review of Recent Foraminiferal Studies by Russian Authors."

John Chronic and Halka Chronic -- "Composition and Ecologic Implications of a Pennsylvanian Faunule from Colorado."

W. T. Rothwell -- "Fossil Fish Scales in Exploration for Petroleum." A. Stirton -- "Vertebrate Paleontology and Continental Stratigraphy in Colombia."

Lucien La Coste -- "Basic Principle of the La Coste-Rom-

Lucien La Coste -- "Basic Principle of the La Coste-Romberg Underwater Gravity Meter."

Raoul Vajk -- "Evaluation of Density Data for the Determination of Density Contrasts."

W. Heiskanen -- "Some Important Problems Concerning the World-Wide Gravity Program."

W. Jacque Yost, R. L. Caldwell, C. I. Beard, C. O. McClare and E. N. Skomal -- "Characteristics of Electromagnetic Reflections in Conducting Madia." Reflections in Conducting Media."
W. E. Wickerham -- "The Gulf Airborne Gradiometer."

LUNCHEON, FASHION SHOW, BUS TOUR -- For the Ladies registered for the 11:00 AM Convention.

12:00 Noon Alumnae luncheons. Schedules will be available at registration desk at time of convention.

2:00-5:00 PM A.A.P.G. SYMPOSIUM ON FRACTURED RESERVOIRS

Jules Braunstein -- "Fracture Controlled Production in the Gilbertown Field, Alabama."

W. M. Wilkinson -- "Fracturing in the Spraberry Reservoir,
West Texas."

Henry J. Morgan, Jr. -- "Production from Fractured Rocks

in the Northern Fields of Mexico."

Louis J. Regan, Jr. -- "Fractured Shale Reservoirs of California."

Marcus A. Hanna -- "Some Occurrences of Fracture Porosity in the Gulf Coast."

# WEDNESDAY March 26

9:00-12:00 AM A.A.P.G. SPECIAL RESEARCH SUBJECTS

Francis P. Shepard -- Report on the Progress of A.P.I. Research on "The Origin of Oil." M. King Hubbert -- "Entrapment of Petroleum under Hydro-

dynamic Conditions."

Ph. H. Kuenen -- "Paleogeographic Significance of Graded Bedding."

Florent H. Bailly and Henry M. Killian -- "Differential Thermal Analysis Compared to Micropaleontology for Stratigraphic Correlation." tion.™

John C. Maxwell -- "Comentation of Sand under Conditions Simulating Deep Burial." W. A. Ver Wiebe -- "Appalachia - A Landmass."

9:00-12:00 AM S.E.P.M. Papers: Daniel J. Jones -- "Ostracoda from Pleistocene Lacustrine Sediments, Great Salt Lake Valley, Utah.

Zack M. Arnold -- title of paper to be announced. Orville L. Bandy -- "The Frequency Distribution of Recent Foraminifera off California."
Manley L. Natland -- "New System of Stage Classification for California Pliocene and Pleistocene."

Robert Malcolm Swesnik -- "The Fractured Nature of the West Edmond Hunton Reservoir, Central Oklahoma."

Edward A. Koester -- "Mississippian 'Chat' Production in East-Central Kansas."

S.E.P.M. Papers: Roger Revelle -- "What are the Oceanographers Up To?"

Benjamin H. Burma -- "Trends of Research in Paleontology."

Fred B. Phleger -- "Significance of New Research on 2:00-5:00 PM

W. C. Krumbein -- "Research Objectives in Sedimentology."
Ben Cox -- "Research in Modern Geology and its Application to Petroleum Exploration."

2:30-5:00 PM S.E.G. Papers:

C. B. Vogel -- "A Seismic Velocity Logging Method."
C. B. Loper and R. R. Pittman -- "Seismic Recording on Magnetic Tape."

Maurice Ewing, Charles B. Officer, Paul C. Wuenschel, Bruce C. Heezen, and George Sutton -- "Deep Sea Refraction Techniques and Magnetic to the Atlantic George" Measurements in the Atlantic Ocean."

L. G. Howell, E. F. Neunschwander, and A. L. Pierson, III

--Gulf Coast Surface Waves."

Dean Walling and Carl Savitt -- "Interpretation Method

for Well Velocity Surveys."

C. F. Allen, L. V. Lombardi, and W. M. Wells -- "Application of the Reflection Seismograph to Near-Surface Exploration."

A.A.P.G. PANEL DISCUSSION FOLLOWING AFTERNOON TECHNICAL PROGRAM, BALLROOM, BILTMORE, A.I.LEVORSON, MODERATOR.

# THURSDAY March 27

A.A.P.G. Papers: F. H. Lahee -- "Exploratory Drilling in the United States during 1951."

Charles W. Sternberg and A. J. Crawley -- "The Denver-Cheyenne Basin." 9:00-12:00 AM

T. R. Barnes -- "Exploration in the Williston Basin."
L. L. Sloss -- "Interpretive Stratigraphy of the Great Basin."

Basin."

Basin."

William H. Corey -- "Tertiary Basins of Southern California and Offshore Area."

S.E.P.M. Papers: Douglas L. Inman -- "Seasonal Variations in Texture of 9:00-12:00 AM Beach and Nearshore Sediments at LaJolla. California."

S. C. Rittenberg and K. O. Emery -- "Transformations of Organic Matter in Recent Basin Sediments."

Roland F. Beers and Shepard W. Loman -- "The Sedimentology and Geochemistry of the Black Sea."

J. E. Holzman -- "Submarine Geology of Tanner and Cortes

Banks."

Edwin L. Hamilton -- "Sediments from some Flat-Topped Seamounts of the Mid-Pacific."

9:00-12:00 AM S.E.G. Papers: Hans Lundberg -- "Recent Developments in Mining Geophy-

Hans Lundberg -- "Recent Developments in Mining Geophysics."

George R. Rogers -- "Subsurface Gravity Measurements."

L. B. Slichter and L, Knopoff -- "Model Studies of Electromagnetic Prospecting Methods."

Harold M. Mooney and Rodney L. Bleisfuss -- "Magnetic Susceptibility Measurements in Minnesota."

Harold O. Seigel -- "Ore Body Size Determination in Electrical Prospecting."

James R. Wait -- "The Cylindrical Ore Body in the Presence of a Cable Carrying an Oscellating Current."

1:00 & 2:00 PM S.E.G. -- Two afternoon tours isiting Cai-Tech and United Geophysical Laboratories.

A.A.P.G. Papers: Cecil Hagen -- "Geology of Coastal Ecuador."

John O. Nigra -- "Paleogeography and Paleotectonics of 2:00-5:00 the Middle Cretaceous of Mexico."

David A. Probst -- "Stratigraphic Studies, Greater
Oficina, Venezuela."

A.A.P.G. Business Meeting.

2:00-5:00 PM

S.E.P.M. Papers: Sherman A. Wengerd \_\_ "Graphic Techniques in Section Measurement."

Dan E. Feray \_\_ "Edwards Core Study, Texas."

Raymond Sidwell and G. Frederick Warn \_\_ "Sedimentation and Petrology of Pennsylvanian Deposits in Upper Pecos Valley, New Mexico."

W. D. Keller \_\_ "Analcime in the Popo Agie Member of the Chugwater Formation."

Chugwater Formation.

Frederick Warn, R. P. Carmack, and Raymond Sidwell -- "The Spraberry Sands of the Midland Basin, Texas."

Thomas Clements -- "Calcareous Dunes of Death Valley."

J. F. Mann -- "Some Sedimentary Features of the Temecula

Arkose."

A.A.P.G. DINNER DANCE AND ENTERTAINMENT -- Biltmore Bowl. Price \$8.00 per 8:00 PM person. Tickets to be purchased and tables to be arranged at time of registration.

#### FRIDAY March 28

8:00 AM A.A.P.G. FIELD TRIP -- All day trip through Castaic Junction, Santa Clara Valley, Cuyama and return to Los Angeles.

#### FRIDAY & SATURDAY March 28 & 29

TWO DAY TRIP WITH OPTIONAL ROUTES ON SATURDAY 8:00 AM On Friday, this trip will coincide with the preceding one day trip but will terminate at Bakersfield with a dinner and brief geological talk in the evening. On Saturday, one group will go through the East Side Fields, to Kettleman and Coalinga, returning through Big Tar Canyon and the West Side Fields to Los Angeles. The rest of the group will go by train or plane Friday night to San Francisco and on Saturday go to San Mateo and east to Mt. Diablo, returning to San Francisco in the evening.

> A comprehensive guide book will be available which gives logs of the routes covered, with maps, cross-sections, and air photos illustrating the geology.

# PERSONAL ITEMS.

We all send heart felt sympathy to Bill and Joan Schlax now with Superior in Midland, Texas. They lost their two and a half year old boy from complications resulting from an infection.

Jim and Lucy Osborne of Shell in Bakersfield have a new baby girl, Elizabeth.

Bill Charles brought his new wife Edith back to Bakersfield for the summer. They were both working for P. W. in Canada when they met and were married at Calgary.

Bruce and Joan Robinson, of Superior in Bakers-field, welcomed a daughter, Margaret Carol, on January 22nd.

Quentin Moore has been transferred back to Bakersfield from Hanford by General Petroleum.

Lowell Saunders made a bet that his first grandchild would be a boy. Although he lost the bet you should hear the proud grandfather boast about his granddaughter, Carol Lynne. Her parents, Phylis and Bill Saunders, reside in Redwood City.

Hyman Seiden is temporarily in Coalinga for Standard. He graduated in February from UCLA.

William J. Lewis, a graduate of USC, 1951, has joined the geological staff in Taft for Standard.

Bill and Marty Craig of Sunray in Bakersfield have a new son, William Helm.

Bill Bailey of the D.O.G. is replacing Sam Dolman as Deputy Supervisor in Santa Maria on March lst. Bailey will be replaced in Bakersfield by Steven H. Rook.

Dave Sears, geologist for Shell in Bakers-field, is going to Houston, Texas for a two weeks training course.

All those interested in how to grow hair contact Chris Christensen of British American in Bakersfield. Chris is sprouting new and vigorous

We understand that Doug Traxler was more than usually interested in Stop No.2 of the afternoon's program at the recent S.E.P.M. field trip in the eastern Ventura Basin. At least reports have it that Doug awoke in his car at that location to find that everyone had gone. After finding the next stop equally deserted, he finally found John Crowell, one of the conference leaders of the trip, at Tip's waiting and wondering for over an hour where Doug, his promised ride home, had gone. There was an abundant iced supply at lunch, wasn't there?

Two members of Ross Cabeen and Associates have new arrivals to announce: Blakemore Thomas is the proud father of twins, a boy and a girl (his second and third); and George Roth now has a granddaughter, Katrin Michaelson.

Henry Walrond has gone to Hollister for General Petroleum to watch their new test in that area.

Bob Orwig of General Petroleum found a Sacramento home for his family in record time -- had no trouble at all. We understand that Bob felt awfully badly that during a recent trip to Los Angeles closing of the Ridge Route prevented him from returning to Bakersfield in time to help pack for the move to the north.

Bob Mangold is leaving Independent Exploration to become manager of operations for  $D_{\bullet}$  K. Associates.

Bob Ford, Schlumberger, has gone to Caracas.

Bob Quinn, who left Wilshire on February 1, is going to Bolivia to supervise that government's drilling and development of the Camiri Oil Field.



J. M. (Jim) Douglas, Salinas Valley patriarch, is presently recouperating at home from a recent heart attack.

Paul Hayes has been transferred to Midland, Texas for Southern California Petroleum.

Phil Cook, Union-Whittier, has been appointed as chairman for this year's Pico Canyon picnic.

Sawyer Exploration Company has announced a change of address to Room 610 Quinby Bldg., 650 South Grand, Los Angeles.

President Frank Morgan addressed A.A.P.G. affiliated geological societies during February in New Mexico, Texas, Louisiana, Mississippi, Illinois, Michigan, North Dakota, and Saskatchewan on "The Progress of Geological Science in relation to Petroleum and Natural Gas." In addition stops were made on Association business with local offices and committee men in Dallas, Chicago, Billings, Casper and Salt Lake City. On February 19, back in California, he addressed the San Joaquin Valley Geological Society in Bakersfield on the "Business of Oil Finding."

Richfield has sent Stan Conrad and Harry Jamison to Washington; John Wiese is in Casper and Jim O'Flynn will be watching the Salinas Valley from Bakersfield after closing their offices in Paso Robles.

Scout reports from Northern California indicate Hugh McClellan will be at the helm of new offices for Continental in Sacramento.

Standard Oil Company reports that O.F. Van Beveren is their new General Manager of the Exploration Department. George M. Cunningham will leave California for New York to become president of American Overseas Petroleum Limited, a Cal-Tex subsidiary.

George Hazenbush, formerly with the State Division of Mines, has resigned to accept a position with the Texas Company in the San Joaquin Valley. George received his master's degree in Geology at U.C.L.A.

Paul Kartze has been named a vice president for the Shell Oil Company of Canada. He will maintain offices in Calgary.

Myles A. Colligan, district geologist for Wilshire in Southwest Texas, where he has been since 1950, is co-author of an article in the February issue of the Petroleum Engineer on the Wilshire-Ellenberger Field.

Ted Lee is spending a few weeks in Canada for Sunray.

Current plans may place Rolfe Johnson as geologist for the Santa Maria area for Sunray next month.

Page Richardson, who formerly scouted for Fidewater in the King City area, is now scout for Southern California and coastal districts with headquarters in Los Angeles.

Bill Quackenbush, formerly in the Gulf Coast Division and Los Angeles Basin with Union and now lst Lt. CE, arrived in Korea in September, where he is Economics Officer in one of the provinces for United Nations Civil Assistance Command. He says they have no oil but lots of problems — the command has handled and helped rehabilitate some three and one-half million South and North Korean refugees — no small task. Bill is anxious to see his second child, Louise Ann, born November 12,1951.

# BIBLIOGRAPHY OF RECENT PUBLICATIONS

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Bulletin of the Geological Society of America. December, 1951.

"Submarine Erosion, A Discussion of Recent Papers." Dr. Francis P. Shepard. pp. 1413-1418.

# State of California Department of Natural Resources. Division of Mines. Special Report 1-A.

\* "Sierra Blanca Limestone in Santa Barbara County, California."

## TRADE JOURNALS AND MISCELLANEOUS MAGAZINES

The Oil and Gas Journal. February 18, 1952.

"The Laterlog and Salt-Mud Well Logging." G. J. Decker and M. Martin, pp. 119-129.

# The Oil and Gas Journal. February 25, 1952.

"Progress Report: Big Medicine Bow Field, Carbon County, Wyoming." George Veronda. pp. 170-175.

# The Petroleum Engineer. January 1952.

"Oil Shale as a Fuel Resource." Clyde Berg. pp.

#### World Petroleum. January 1952.

"Geology of the Williston Basin in North Dakota." Wilson M. Laird. pp. 42-47.

#### BOOKS

- "Guide to Geologic Literature." Richard M.Pearl. McGraw-Hill.
- "Geology, Principles and Processes." Third Edition. Emmons, Thiel, Stauffer, Allison. McGraw-Hill.
- "Principles of Field and Mining Geology." J. Donald Forrester. John Wiley & Sons.
- "Principles of Sedimentation." Second Edition. Revised. W. H. Twenhofel. McGraw-Hill

·Swiss Holmes, Shell Sacramento Valley scout and an avid skiler in his free time, is Patrol Leader of the National Ski Patrol for the Sacramento area. An injured ankle prevented him from joining his patrol when they were active in conducting rescue operations for recently snowbound train, the City of San Francisco.

The Texas Company has joined the growing oil company migration to Sacramento with the opening of an office manned by Bob Alabaster and John Reynolds.

Brazos is also in the capitol city with Bill Cunningham and A. I. Safonov making the trek from Isleton.

Charles Sturz, San Francisco paleontologist for TWAO, barely missed a 1951 tax exemption, but Charlie is proud to announce that a new individual of the Homo sapiens species has been named Jerome, born on January 12, 1952. He is the first child for the Sturz family.

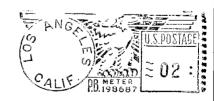
A. S. Holston, better known as Tke, has been named Tidewater's senior district geologist in Los Angeles. This post was formerly held by Claude Leach. Homer Steiny is now district geologist succeeding Ike.

# **CALENDAR**

- Mar. 3, 1952; Monday, 7:00 P.M. A.P.I. Petroleum Engineer Seminar, KCUHS - Visual Aids Auditorium Bakersfield. Speaker to be announced.
- Mar. 6, 1952; Thurs., 12:00 noon, AAPG, Pacific Section Luncheon; Rodger Young Auditorium, Los Angeles: H. R. Hamilton of Huntington State Company, colored movie "Safari".
- Mar. 6, 1952; Thurs., 6:30 P.M., AIME Dinner Meeting; joint meeting of Mining and Metals Group, Junior Petroleum Group, and Pacific Petroleum Chapter; Rodger Young Auditorium, Los Angeles: A. P. Maradudin, Standard Oil Company, "Present and Future Steel Requirements for the Drilling and Producing of Oil."
- Mar. 7, 1952; Fri., 7:30 P.M., CNGA Dinner Meeting, Joint Meeting of Ventura, Taft, and Los Angeles Chapters, American Legion Hall, Newhall: Old Timers' Night "CNGA Passes in Review".
- Mar. 13, 1952; Thurs., 12:00 noon, SEG Luncheon, Rodger Young Auditorium, Los Angeles: Clarence Allen, Caltech: "Seismic Exploration on the Malaspina Glacier."
- Mar. 17, 1952; Mon., 7:00 P.M. API Petroleum Engineer Seminar KCUHS Visual Aids Auditorium, Bakersfield, J. O. Hills "Casing and Tubing Classification and Design."
- Mar. 18, 1952; Tues., 8:00 P.M., API, Los Angeles Basin Chapter, Shell Recreation Hall, Long Beach: "The Practical Aspects of Oil Well Corrosion" sponsored by the local chapter of the National Association of Corrosion Engineers, and a colored sound film "Corrosion in Action" from the International Nickel Company.
- March 18, 1952; Tues., 8:00 P.M. API San Joaquin Chapter, Bakersfield Inn, Bakersfield, speaker to be announced.
- Mar. 24-27, 1952; Mon-Thurs., Joint Annual National Convention, AAPG, SEPM, SEG; Biltmore Hotel, Los Angeles.
- Mar. 31, 1952; Mon., 7:00 P.M., API Petroleum Engineer Seminar KCUHS Visual Aids Auditorium, Bakersfield, "Tank Farm and Oil Gathering System Design", speaker to be announced.

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Mr. Fred R. Neuman 381 E. 4th St. Chico California

# NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 6

April 1952

No. 4

# ASSOCIATION ACTIVITIES



T. V. FORUM

marked by a television program originating in the studios of K.T.T.V. which was designed to acquaint the public with the functions of an exploration department of an oil company. Speakers on the forum were Mr. Frank Morgan of Richfield, Mr. Leo Newfarmer of the Shell, Mr. Henry Salvatori of Western Geophysical, Mr. Graham Moody of Standard, and Mr. Wilbur Rankin, consultant. Dr. Rufus B. von KleinSmid formerly of the University of Southern California was the Moderator for the program. Mr. Morgan opened the discussion by pointing out that before the eyes of the viewing public was assembled a typical oil finding team; that geologists were present, and that the principal science tools which geologists use, namely, seismic and gravity surveys and paleontologic study were represented by Mr. Salvatori and Mr. Rankin. Mr. Morgan also described how the geologists usually employ these tools. Further discussion by Leo Newfarmer described in general the usual types of structural geologic traps that the geologist looks for. The discussion turned to an essential ingredient of the oil industry in this country: competition; and it was very strikingly brought out that the development of the oil industry here to supply the world's great demand is a result primarily of the competitive nature of the oil business. It was shown how Mexico has failed to develop comparable resources, although there is every reason to believe from geology that Mexico could be proportionately as greatly productive a state as is the United States. The case is similar as far as European nations are concerned. Mr. Moody made the very strong point that although demand continues to increase in the world for petroleum, the geologist, assisted by the geophysicist and the paleontologist has successfully increased yearly the found reserves, such that at any date in the last 10 years, more oil may be said to have been proven in the ground than has been demanded that year.

A discussion of the oil potential of Russia closed the round table with Mr. Rankin and Mr. Salvatori making very interesting points which, although based on conjecture insofar as Russia's oil production is concerned, seemed to be supported by a common sense viewpoint. Primarily, their point was that, although Russia may have successfully discovered and (less likely) may be producing oil reserves which are comparable somewhat to that of the United States, it is almost certain that she does not have the means of transportation or refining in order to utilize such a large production satisfactorily in her war machine. In connection with this point, it was shown by both Mr. Morgan and Mr. Moody how the very intricate network of pipelines and tank farms and refineries which are so necessary for the utilization of oil in the United States are believed relatively invulnerable insofar as an atomic attack is concerned due to their dispersion. Dr. von Kleinsmid made several remarks throughout the evening mostly in an interpretive vein when the geologists and geophysicists began to speak of things that perhaps were not too familiar to the layman.

## S. E. G. LUNCHEON

"Seismic Exploration on the Malispina Glacier" was discussed by Mr. Clarence Allen of Cal Tech at the regular S.E.G. Luncheon Meeting held Thursday, March 13th at Roger Young Auditorium. The Malispina glacier is located on the Southern Coastal Plain of Alaska. Studies on this and associated glaciers have been conducted for three seasons by Cal Tech under the auspices of the Artic Institute of North America.

Seismic profiles, gravity readings, and measurements of differential vertical velocity flowage within the ice have been made. By these and other studies it is believed that a greater knowledge of the mechanics of flow structure in the ice and consequently other solid media can be obtained. Results of such studies would have a bearing, for example, on the better understanding of the development of rock flowage in Schists. The seismic profiles showed a reflection that was generally good arising from the interface of the ice and the underlying sedimentary rocks. Velocities within the ice have been measured at 12,300 feet per second, which is very high considering that the velocity in water is approximately 5000 feet per second. Gravity measurement confirmed some of the seismic results, but these have been incompletely worked to date.

Another interesting fact is that reflections could not be obtained from shot holes less than approximately 25 feet deep. It is believed that this amount of overburden was necessary in order to transmit the seismic waves through the ice, rather than being an effect of what in normal shooting would be the weathering layer.

# EXECUTIVE COMMITTEE, PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Homer J. Steiny Harold Sullwold Rufus M. Smith Frank B. Carter Mel Hill President Vice-President Secretary-Treasurer Past-President San Joaquin Representative

#### PACIFIC PETROLEUM GEOLOGIST

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D. L. Kirkpatrick
Bob Anderson
Bob Herron
Bob Herron
Dick Thorup

Next Deadline April 28, 1952

# L. A. LUNCHEON

Over seventy members and guests were entertained by Mr. H. R. Hamilton, President, Huntington State Co., on March 6 with a color film entitled "Safari".

The expedition included Mr. and Mrs.

The expedition included Mr. and Mrs. Hamilton, Mr. and Mrs. Knudsen of Knudsen Creamery Co., and Mr. Lawrence Melchior with a party of return belong and three professional hunters.

of native helpers and three professional hunters.

The safari followed a circular route covering about 700 miles in six weeks from the British East African town of Nairobi. Base camps were set up about every five days en route to enable the party to obtain trophy specimens of big game. The difference in habitat of elephants, lions, rhinoceroses, etc., required the party to move from place to place.

The caravan passed several native villages during the safari which Mr. Hamilton had opportunity to photograph. He mentioned during his commentary that native children took care of the

The caravan passed several native villages during the safari which Nr. Hamilton had opportunity to photograph. He mentioned during his commentary that native children took care of the cattle, the women did the work and the men only hunted and practiced archery. This proved to be quite an understatement, however, when the film later showed the lone male occupant of a small village with eight wives and about 60 children playing underfoot.

# S. E. G.

The annual Spring Meeting of the Pacific Coast Section of the Society of Exploration Geophysicists will be held in Bakersfield, May 2nd. The meeting will offer a full afternoon of outstanding papers to be followed by a dinner meeting. The speaker and title of his talk will be announced.

Geologists as well as geophysicists will find this meeting of special importance. Mark your Calendar now!

# PERSONAL ITEMS

Standard Oil's Harry Nagle is in San Francisco on temporary assignment from Bakersfield.

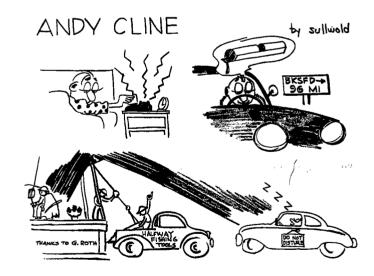
Dr. S. K. Chakravorty who is with the Oil and Gas Conservation Branch of the Department of Natural Resources for the Saskatchewan government has been a recent California visitor. While here he attended the AAPG convention and became acquainted with some of the personnel of companies active in Saskatchewan.

Its news enough when a geologist gives up his independent single status for marriage, but its really headline news when we hear of two geologists in the same company planning marriage—on the same day—and to each other. Charity Murray announced her engagement to Don Stone at an informal gathering on March 16th. Both are with Standard's Sacramento office. A spring wedding is planned.

Howard Semler is now attached to the Continental Oil Company's Sacramento office.

Recent guests at the Northern California Geological Society Monday luncheon included Jack Bainton, paleontologist for Standard Oil, and Dr. E. Fred Davis, well known Los Angeles consultant. All visiting geologists are cordially invited to join this luncheon group every Monday at New Delmonicos in San Francisco.

Dick Ten Eyck, formerly Asst. Regional Geologist, Western Region, for Continental Oil Co, and more recently Assistant to the Chief Geologist in Houston, has taken a position as Assistant to the Vice-President of Exploration for British American Oil Products Company.



Ralph Arnold has recently returned from Florida where he has been for four months finishing up a reconnaissance survey of that state which has intermittantly taken his attention for the last seven years. The new discovery of the Humble Oil & Refining Company in Alabama, four miles north of the Florida line, came in the middle of the area Arnold has been studying. He says not to believe the stories of ten foot rattlesnakes - they are only nine feet long. Also the alligators do not steal your lunch when you climb a tree to establish a triangulation station in the swamps - they just make you lose your appetite.

Gene Borax has departed from California to join the Union group in Costa Rica.

Dick Thorup is the proud father of 8 lb. 7 cz. Robert Richard born on March 11th. Dick's first was a girl.

We were sorry to hear that Jim Douglas, recouperating from a heart attack, suffered a relapse and was forced to return to the hospital.

The Association of Petroleum Wives of Bakers-field put on a whopper of a hard times party on the eve of "Income Tax Day". The beer keg, with a \$25.00 deposit on it disappeared and caused quite a commotion but has now been located.

Don Ford, graduate of the University of Wisconsin and formerly with the U.S.G.S. is now with Sunray.

John Pujol, formerly of Baroid, has joined the T.W.A. Geological Staff in Bakersfield.

Lesh Forrest, formerly with General Petroleum, is now Chief Geologist for M.J.M & M. Oil Company, with offices in the Haberfelde Building, Bakersfield. Lesh has been with G.P. since 1948.

Bob Bennett left T.W.A. to join the Geological Staff of Western Gulf, Bakersfield.

W. C. Gere, personable geologist with Minerals Classification Branch of the U.S.G.S. is recouperating from a painful operation which will necessitate extreme care in the exercise of his duties for several weeks.

Ken Evans is closing the Bell Oil Company's Bakersfield Geological office and is moving to Los Angeles April 15th.

Scout reports indicate that Louie Taylor is leaving Richfield to work for Baroid.

John Wiese with Richfield in Wyoming, will be laid up for some tire in a cast following a serious accident in the Casper area. His car reportedly rolled over several times on icy roads. We all wish John a speedy recovery. His address -- Casper Hospital, Casper, Wyoming.

Quintin ard Jeanne Query have a new son, Christopher Brian, 7 lbs., 14 oz, born February 17th. They have two other children, a boy and a girl.

Paul McGovney is slated for a temporary assignment in the Rocky Mountains in the Williston Basin areas. His headquarters have not yet been determined. Bob Galeski will take over the Bakersfield office during Paul's absence.

Carl Savitt, Western Geophysical, has announced a baby daughter born March 13th. Carl also has a boy.

A number of friends met with Pacific Section President Homer Steiny to celebrate his birthday February 25th at Roger Young Auditorium. The number of the birthday is not reported.

Hal Bemis, Standard in Bakersfield, has been elected District Representative with the Pacific Coast Section of the S.E.G. He takes the place of Seaboard's John Hale whose term expired.



Richard R. Clark is the new T.W.A. Scout. He was formerly with Peters Formation Logging Service Company and a graduate of U.C.L.A. 1950.

Walter Record, Jr. of Richfield is on his way to Calgary, Canada, for a new assignment.

Clyde Copper has joined the British American Geological Staff in Bakersfield. He was formerly with the U.S.G.S. in Colorado and Roswell. He is a U.C.L.A. Grad of 1948.

Ray Sturdevant has been changed from Geophysical to the Geological Department, and will be located in Sacramento for the Shell Cil Company.

Andy "Fireman" Anderson beat the Bakersfield firemen in drowning a burning waste basket and hence saved the Moronet Building. Since this heroic deed he has been besieged with phone calls from the fire department concerning fire prevention.

Bud and Patrica Porter of Standard in Coalinga announced the arrival of a new son.

Harry Roehl, graduate of Stanford and Ohio State, and C. F. Scheisser have joined Standard's Alex Tarbet and his group in the new offices in Salinas. We understand the offices comprise quite a layout. The address is Box 115 Alisal Branch.

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\*Pacific Coast

PACIFIC PETROLEUM GEOLOGIST
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Vol. 6 No. 4

# CALENDAR

Apr. 3, 1952; Thurs., 6:30 p.m. CNGA Dinner Meeting, Rio Hondo Country Club, Downey: Frank Matheny of Sid Richardson Gasoline Co., Ft. Worth, Texas, "Underground Storage of Propane."

Apr. 9-13, 1952; Thurs.-Sun., GSA, Cordilleran Section Annual Spring Meeting, University of Arizona, Tucson, Ariz.

Apr. 10, 1952; Thurs., 7:00 p.m., AIME, Junior Petroleum Meeting, Rio Hondo Country Club, Downey: Panel of four speakers representing universities and operating companies will discuss the problems of education for petroleum exploration, drilling and production.

Apr. 21 1952; Mon., 7:00 p.m., AAPG, Pacific Section Forum, General Petroleum Auditorium, Los Angeles: Program to be announced.

Apr. 22, 1952; Tues., 6:15 p.m. Branner Club Dinner Meeting, Caltech Athenaeum, Pasadena: Dr. V. L. Hander Hoof, "Earthquake Destruction in Northern California in 1906."

May 2, 1952; Fri., 1:30 p.m., SEG, Pacific Coast Section Annual Spring Meeting; El Tejon Hotel, Bakersfield: Program to be announced. Evening Dinner; Spanish Ballroom, El Tejon Hotel: Speaker to be announced.

Mr. Fred R. Neuman 381 E. 4th St. Chico California

#### NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Volume 6

May 1952

No. E

## ASSOCIATION ACTIVITIES

#### S. E. P. M. FIELD TRIP

The Annual Spring Field Trip of the Pacific Section S.E.P.M. is this year to be held in the section s.s.f.m. is this year to de held in the type Vaqueros area of Monterey County; the date, May 10, 1952. The Field Trip Committee, which is composed of R. R. Thorup, Chairman, R. M. Kleinpell, Co-Chairman, Ed Gribbi, Tom Baldwin, Clarence Schisser, Alex Tarbet, Hans Ashauer, and Jim O'Flynn have worked long and hard to prepare the syllabus for the field trip which will be distributed at the meeting place at the beginning of tributed at the meeting place at the beginning of the trip. Details insofar as the trip is concerned are:

Meet on Southwest side of U.S. Highway #101, along county road leading west from Greenfield to the Arroyo Seco area. This road is located on the south edge of town near the Texaco Service Station.

The Departure time is 9:00 AM, May 10, 1952.
All cars which go on the trip must be loaded to capacity due to the fact that the road is narrow and surplus cars are not desirable. Stops, with discussion of the stratigraphy, are scheduled in the Santa Margarita, the Monterey, the Sandholdt, and Vaqueros formations, the Berry conglomerate and the Lucia shale.

The route of the field trip through the Monterey is to be well marked with flags at the approximate location of foraminiferal stages, and discussion, led by R.M. Kleinpell, will be held at several stops.

several stops.

Refreshments, courtesy of several service companies, will be served, however, each geologist participating is expected to provide his own lunch.

As unfortunately this date conflicts with the Monterey County Fair, which is being held in King City on this weekend, geologists who expect to attend and who desire hotel or motel accommodations rather than roughing it in the Arroys Seco. rather than roughing it in the Arroyo Seco, are advised to attempt to obtain their reservations as early as possible. A great number are planning to camp out in the Arroyo Seco area.

## S. E. G. LUNCHEON

R. B. Moran, Jr., owner-manager of Moran Instrument Co. in Pasadena, gave a repeat performance of his interesting talk entitled "Electronic Surveying in the Persian Gulf Area" at the S.E.G. luncheon meeting held Thursday, April 10, at Roger Young Auditorium.

As an introduction to his talk, Mr. Moran showed a number of slides of the various types of electronic equipment used in such surveys, and of his laboratory in Pasadena. Then followed a series of slides of the Persian Gulf area, types of auxiliary equipment used and conditions under which the survey was made in 1951-52. During a three month period, about 50% of which was used for surveying, an area of approximately 10,000 square wiles was surveyed and 87 main control points were established, controlling 615 miles of shoreline. In establishing these control points, a total of 6,682 miles of traverse was measured in 218 traverses.

The last few slides shown were devoted to the culture of the country-their cities and villages, habits and dress, and the industry of these people.

## DIRECTORY DEADLINE

The revision of the Pacific Section Directory is proceeding according to schedule and Dan Klemme, chairman, has announced the following:

New members of the Section and old members, whose pictures are not included in the directory, should submit a 3/4" by 1" photograph along with the necessary data. If such a size photo is not available any size may be sent along with \$1.00 to defray costs of reduction.

Corrections of the existing text should be made by card or letter, preferably typewritten, but, if in longhand, with names printed.

Both new entries and corrections must be in-

Both new entries and corrections must be in the hands of Dan Klemme, Hancock Oil Co, Box 810, Long Beach, California, prior to May 20, 1952.

The corrections and additions will be pub-

lished in this publication in the June or July issues.

#### CONVENTION STATISTICS

The following attendance figures and other data were compiled by Roy Barnes, Chairman of the Registration Committee. The largest attendance of any prior convention was that which was held in Denver in 1948.

		Members	Guests	Guests	Total
L.A.	1952	1942	800*	583	3325**
Denver	1948	18 <b>7</b> 1	865	252	2988
L.A.	1947	877	294	361	1532

\* 90% from out of L.A. area \*\* plus 500 not registered

Dinner dance1196	
Alumni Luncheons1008	
Field Trips 540	
Guide books	out
of 1470	

Pacific Section California cross sections.....1227

# L. A. FORUM MEETING

Over 80 members and guests were present at the regular evening meeting on April 21 to hear

the regular evening meeting on April 21 to hear Mr. W. L. Cozzens, photogrammetric engineer for Fairchild Aerial Surveys speak on "Aerial Photography and Photo Interpretation."

Mr. Cozzens showed during the course of his talk examples of nearly every type of geologic phenomena likely to be encountered by a geologist mapping in the field. Of particular interest were photos of mining districts in the Mojave rewere photos of mining districts in the Mojave region in which structure and accompanying minera-

lization was clearly shown.

There was no doubt in the minds of the audience at the conclusion of the lecture that air photos are of prime importance in geologic and physiographic interpretation of an area -- whether it be desert or jungle!

# EXECUTIVE COMMITTEE, PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Homer J. Steiny Harold Sullwold Rufus M. Smith Frank B. Carter Mel Hill President Vice-President Secretary-Treasurer Past-President San Joaquin Representative

## PACIFIC PETROLEUM GEOLOGIST

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Salinas Representative:
Dick Faggioli
Lee Diehl
Ida Dobler
Harold Sullwold
D. L. Kirkpatrick
Bob Anderson
Bob Herron
Salinas Representative:
Dick Thorup

Next Deadline May 26, 1952

# ANNUAL SPRING PICNIC PACIFIC SECTION - A.A.P.G.

DATE: Friday and Saturday, June 6-7,1952
PLACE: Pico Canyon(Standard Oil Picnic Grounds)
TIME: 2:00 P.M.
FEE: \$2.00 (at the gate)

Prior to the picnic proper, the tennis and golf tournaments will be conducted.

Tony Morris (Phone: Arizona 3-7220) will be chairman of this year's tennis tournament. The tournament will be held at the North Hollywood Park courts, 5301 Tujunga Avenue. The tournament will start at 9:00 A.M. and will cost \$1.50. The fee will include court fees and prizes. Players are requested to bring their own rackets, tennis balls and towels. Showers are available.

Stan Siegfus (Phone: Mutual 3271) and Jack
Beach (Phone: Bakersfield 35281) are co-chairmen for
the golf tournament. The tournament will be held at
the San Fernando Valley Country Club just off Ventura
Blvd., nine miles west of Sepulveda Blvd. The entry
fee will be \$3.00. Jack Beach is in charge of match
making and starting times. All players are requested to furnish established handicaps, or the scores
from their last three games, if available, where no
handicap is established.

For those who are not adept at either tennis or

For those who are not adept at either tennis or golf, the afternoon offers an excellent opportunity to exercise. Elbow bending and molar mashing will be the main events. Ample supplies of beer and food will be available at the picnic grounds. Ham, salami and cheese, with crackers are to accompany the beer for the pre-dinner spack.

salami and cheese, with crackers are to accompany
the beer for the pre-dinner snack.

Kern County Land, through the intercession of
Bill Kleinpell, very generously donated the beef
again this year. Due to the illness of Mr. Snell,
we were unable to secure his excellent services in
preparing the beef. We have secured, however, the
services of another superb chef. He is Hand Fidler,
who has been responsible for preparing the meat at
the Oil Scouts Picnic in Bakersfield.

The membership will be contacted by mail sometime early in May, requesting information regarding attendance at the above functions. The committee asks that members reply as soon as possible in order that a relatively accurate estimate of the number of members who plan to attend can be made.

# CLASSIFICATION COMMITTEE

A list by name of oil fields, pools within oil fields and dry gas fields in California has been compiled by the Classification Committee of the A.A.P.G. Section Township and Pange are given.

Section, Township, and Range are given.

The lists are available for distribution, free by writing: The Classification Committee, A.A.P.G.
Loyde H. Metzner, Chairman, Signal Oil & Gas Company, 811 West 7th Street, Los Angeles 14, California.

"There is no Death! What seems so is transition:
This life of mortal breath
Is but a suburb of the life elysian,
Whose portals we call Death."

This quotation from Henry Wadsworth Longfellow came to mind a few days ago when I received word of the untimely death of Max Steineke, a good personal friend of mine, and one of our Association's honored members.

Max died at his home in Los Altos, California on April 16, 1952 of an affliction of the heart with which he had been suffering for some time. Although Max has gone to his "Happy Hunting Ground" I am sure that to all who knew him well, particularly those with whom he was closely associated in Arabia, feel that his passing is but a transition, and that he is still with us in spirit and that the excellent work to which he was devoted will be continued.

Max was born in Brook-

Max was born in Brookings, Oregon, in March, 1898. He received his early education there, but later attended high school at



Sebasterpool, California. After graduation from high school he entered Stanford University in the fall of 1917, majoring in mining and geology in what is now the School of Mineral Sciences.

He was graduated and obtained his Bachelor of Science degree from Stanford in the spring of 1921 and immediately thereafter started his life work in the field of petroleum geology. He was employed by Mr. Carl Beal, and took part in a geological survey of the Point Barrows, Cape Simpson area, Alaska. This work was completed the following year and then Max entered the employment of the Standard Oil Company of California in June, 1922. His first major assignment with that Company was in Colombia, South America, where he spent the greater part of the next six years. He returned to the United States in the fall of 1928, and during the next three years worked under the direction of Mr. G. M. Cunningham in the San Joaquin Valley. In 1932 he was again assigned foreign exploration work, this time in New Zealand.

Some time during the latter part of 1934, Max joined the geological party in Arabia and approximately two years later he was placed in charge of the exploration work there on an oil concession covering an area nearly as large as the combined states of Texas and California. He held that position until a couple of years ago, when, because of ill health he had to return to California. The petroleum reserves of Saudi Arabia are

The petroleum reserves of Saudi Arabia are now probably in excess of twelve billion barrels and much credit for the success of the Arabian venture is due Max Steineke for his vision. optimism, persistency and friendly leadership in the field of reconnaissance and detailed geology.

Max became a master of the fine art of re-

Max became a master of the fine art of reconnaissance geology of regional areas where evidence is scanty, where careful accurate observations are essential and the various fragmentary
geological data from different sources have to be
coordinated. He suggested the structural drilling method which was so widely applied later in
Saudi Arabia and has resulted in the discovery of
so much oil. Max was also an inspiring leader and
a great trainer of younger geologists.

He became a member of the A.A.P.G. in 1928 and was the recipient of the "Powers Memorial Medal in 1951 -- "For distinguished and outstanding achievements in petroleum geology both as a field geologist and as a friendly and energetic leader in petroleum exploration which have resulted in the discovery of vast petroleum reserves in Saudi Arabia."

leader in petroleum exploration which have resulted in the discovery of vast petroleum reserves in Saudi Arabia."

In spite of his great activity as a field geologist, Max Steineke loved his home, wherever it was. Surviving are his wife, Florence, whom he married in 1925 and their two very attractive daughters, Maxine and Marion, both of whom are attending Stanford University.

G. C. Gester April 27, 1952

# PERSONAL ITEMS

Paul B. Harris, Texas Company geologist, has been transferred from Los Angeles to the Sacramento office.

W. N. Schlax is resident geologist for Superior's new Willows office. Bill has recently returned to California from a Texas assignment.

John T. Dunlap, Shell's Santa Cruz area expert, has once again moved headquarters from Ventura to Redwood City. He is assisted by Manual J. Castro, a recent Cal graduate.

E. B. Noble, well known consultant, was a recent visitor to the Northern California Geological Society luncheon in San Francisco. Earl now maintains offices in Houston, Texas.

Peter Gester of the Standard Oil family has been assigned to the Sacramento office. Pete has recently returned from South America where his geological duties with Richmond Exploration Company have kept him busy in Ecuador and Venezuela for the past eight years.

At the annual meeting of the AIME in New York, R. H. Jahns of the California Institute of Technology, was elected to the Executive Committee of the Industrial Minerals Division. Dr. Jahns replaces Robert H. Dott, State Geologist of Oklahoma, who had to resign because of increasing preoccupation with his duties as secretary-treasurer of the AAPG.

At the same meeting, Ian Campbell, also of the California Institute of Technology, was elected chairman of the Industrial Minerals Division for the coming year, when the national meeting will be held in Los Angeles (February, 1953).

Frank Reynolds, formerly with Wilshire in the Ventura and L. A. areas, is now with the Sunray geological department in Bakersfield.

Art Randall has joined the G.P. geological staff in Bakersfield. Art received his Masters Degree from the University of Utah.

Albert R. Morejohn, a recent graduate of UCLA, has joined the Seaboard geological staff in Bakersfield.

Don Ford has been transferred from the L. A. Sunray office to Bakersfield.

Ted and Barbara Bergen, of Shell in Bakers-field, had a 10 lb. 7 oz. boy on March 28th, named Perry Rae.

Robert C. Kelly, a recent graduate of Oregon State, is now a Continental geologist in Bakers-field.

Bob Patterson, Peters Mud Logging, is leaving on a rapid but extensive journey including Casper, Billings and Saskatchewan.

Pete Hall, who has been scout with Richfield for the last five years in the Ventura Basin, has been transferred to new duties as a geologist.

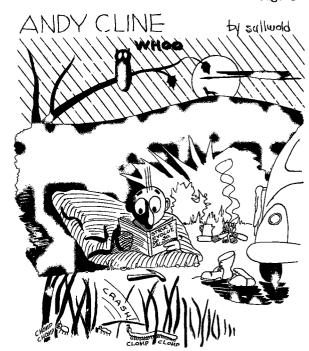
Bob Sitzman, who was formerly the L.A. Basin scout for Richfield, has taken over the coastal scouting assignment in Pete Hall's place.

Bill Saunders, son of Lowell Saunders, has recently been hired as a geologist and assigned to Independent Exploration's Santa Paula Office. Bill is a recent Stanford graduate.

Jim O'Neil, recently returned from the armed forces, has also been assigned to the Santa Paula Office for Independent Exploration. Jim used to work for Independent before he did his term in the services.

Vince Scurry, formerly of International Well Logging Service, has gone to work for Seaboard Oil Company as a geologist in the L. A. office.

Loyal Nelson, formerly Chief Geologist for Southern California Petroleum Corporation, will soon open a consulting office in Santa Monica.



Bill Craig, formerly with Cunray in Bakers-field, has moved to Casper, Wyoming, to engage in consulting work.

Everett Pease has replaced Paul McGovney as Vice Chairman of the San Joaquin Section of AAPG.

Ross Phillips is leaving British American in Bakersfield, effective May 1st, to go into consulting. His office will be at his home at 1813 Corrientes St.

Larry White, a UCLA graduate, has joined the Shell San Joaquin scouting department.

John Weise has been recovering from his accident at his home in Bakersfield. He has lost his cast, and is now talking of how soon he can go back to Casper.

If you want to fix your water heater, check with Richfield's Barney Barnard. We understand his long eye-lashes are no more since he tried to light his.

Kenny Brunto, of Union in Whittier, has been transferred to Bakersfield to do the scouting for the production department.

Paul McGovney is now permanently in Billings, Montana for Honolulu.

Barney Lindsey, of Sunray land department in Bakersfield, has been transferred to the L. A. office.

Bob Ayres, an engineer for Ohio in Bakers-field, has been transferred to Houston, Texas.

Bill Yerington is lacking an appendix as a result of an operation the first of April in the Fullerton General Hospital. Apparently everything came out all right and Bill is back on the job with Ohio in Bakersfield.

Bill Kleinpell and his daughter Kay flew to Honolulu for a few days rest after the convention.

Harold and Grace Fothergill are the proud parents of their second boy, 7 lb, 1 oz, Barry Evan, born April 4th.

Rosalind Osborne, wife of Union Pacific's Lee Osborne, is progressing very satisfactorily after being suddenly subjected to major surgery last month.

Lee (ex-beach boy) Diehl, geologist with Shell in Long Beach, is transferring to production geology in Bakersfield.

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- \* Pacific Coast

# PACIFIC PETROLEUM GEOLOGIST PACIFIC SECTION, A.A.P.G. ROOM 932 714 WEST OLYMPIC BLVD. LOS ANGELES, 15 CALIFORNIA.

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Vol. 6 No. 5

# **CALENDAR**

May 8, 1952; Thurs., 6:30 P.M., AIME, Junior Petroleum Group Dinner Meeting, Rio Hondo Country Club, Downey: Herman Dykstra, California Research Corp., "Application of the Carter Reservoir Analyzer to Field Problems."

May 10, 1952, Sat., 9:00 A.M., SEPM Field Trip to Type Section of Relizian and Vaqueros. Guides: Dick Thorup and Bob Kleinpell. Meet at Greenfield on U.S. Highway 101.

May 12, 1952; Mon., 7:00 P.M., API, Petroleum Engineering Seminar, KCUHS, Visual Aids Auditorium, Bakersfield: M. C. Welch, "The Operation of Gas Conservation and Processing Facilities."

May 13, 1952; Tues., 12:00 noon, AIME Pacific Petroleum Chapter Luncheon, Mike Lyman's (Hill St.) Los Angeles: John C. Crowell, Assistant Professor of Geology, UCLA, "San Gabriel Fault and the Role it Plays in the Accumulation of Oil in the Castaic Area."

May 13, 1952; Tues., 8:30 P.M., API, San Joaquin Chapter, Bakersfield Inn, Bakersfield: Stanley Meno of Regan Forge and Engineering Co., "Rlowout Prevention and Equipment." Second speaker: Clyde Port, "Human Relations in Industry."

May 15-16, 1952; Thurs.-Fri., API, Pacific Coast District Annual Meeting, Biltmore, Los Angeles.

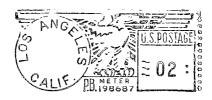
May 19, 1952; Mon., 7:00 P.M., AAPG, Pacific Section Forur, General Petroleum Auditorium, Los Angeles: Program to be announced.

Lay 24, 1952; Sat., 6:00 P.M., API, Third Annual Barbeque, Bakersfield Country Club, Bakersfield. Golf and Bowling Tournament at 2:00 P.M. Contact George Suman for tickets.

May 27, 1952; Tues., 7:00 P.M., API, Los Angeles Basin Chapter Barbecue, Union Oil Company Park, Brea. Restricted to API members with current 1952 dues paid.

May 29, 1952; Thurs., 6:00 P.M., AIME, Southern California Section Dinner Meeting, Commonwealth Room, University of Southern California, Los Angeles: Panel discussion "Engineering Professional Opportunities"; Joint Student Meeting from Cal. Tech., USC, and UCLA. Each member is asked to sponsor a student for the meeting.

June 6, 1952; Fri., AAPG, Pacific Section Stag Picnic, Pico Canyon.



Mr. Fred R. Neuman 381 E. 4th St. Chico California

# NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

#### Volume 6

#### June 1952

No. 6

# ASSOCIATION ACTIVITIES

# A. A. P. G. LUNCHEON

Mr. A. K. Showalter, Forecaster-in-charge, U.S. Weather Bureau, gave a most interesting and educational talk on weather forecasting before 75 members and guests at Rodger Young Auditorium on May 1.

Mr. Showalter's opening remarks dispelled an impression held by many when he stated that long range weather forecasts of other than general climatic conditions are still in the experimental stage. Contrary to publicity during the war and extravagant claims by some forecasters, precise forecasts for periods over 72 hours are not considered practical.

Weather forecasts are based on an exchange of meteorological information reported every 6 hours from weather stations all over the world, includ-

ing countries behind the iron curtain.

The barometer is perhaps the most useful instrument in weather forecasting. In the Los Angeles area all predictions are based on information from several distant stations. If the reading at San Francisco is as much as six millibars (continued in the continued in the conti (a millibar is 1/300 of an inch of mercury) less (a millibar is 1/300 of an inch of mercury) less than the reading at Los Angeles, it probably will rain in Los Angeles. If San Francisco is seven mb's lower than L.A., it may rain and if it is ten mb's higher, we will have northeast winds. We have fog when San Francisco is slightly higher and when Nevada is slightly lower, causing a southerly flow of air.

The type of weather in Los Angeles is determined by the source of air entering the area. Certain sources are more predominant during certain seasons, but are not limited to, nor consistent within, any particular season. Air sources are classified in a counter-clockwise direction as follows. Gulf of Baja California; Gulf of Mexico; Continental Polar air; Continental Arctic; Maritime Arctic; Polar Maritime Arctic; Modified Polar Maritime; and Maritime Tropical.

During the summer we may have thunder storms in the mountains caused by air moving from the gulfs of Mexico and Lower California. The more easterly the direction of wind, the more likelihood of rain

of rain.

Summer heat waves occur when there is a low pressure area to the south. When a low pressure area in this vicinity causes air to flow in from the east, it is sometimes reinforced by Continental Polar air moving southwest, producing our "Santa Ana" winds. Continental Arctic air usually produces the winter freezes that occur in December and January. Maritime Arctic air usually causes brief showers in February, March, April, October and November. Polar Maritime air produces the same as Maritime Arctic. Modified Polar Maritime air very often produces fog. or if combined with Maritime often produces fog, or if combined with Maritime Tropical, fog and/or rain.

The weather bureau was very successful in forecasting the amount of rain of storms the past winter. A quarter inch error was the most that occurred. The amounts forecasted are based on the nearness of the storm center, winds and velocity, the moisture in air and on predicted length of the moisture in air, and on predicted length of storm. Data is obtained from three ocean stations, merchant ships, some 40 land stations and from a daily reconnaissance flight from San Francisco half way to Alaska and return. This flight is on the main winter storm track for California.

In answer to a question on patterns or cycles, mr. Showalter indicated there is no evidence to support them. The only persistent pattern is that one year will most likely differ from the next - which is merely the law of chance.

At the conclusion of his talk, Mr. Showalter jokingly confessed that Mrs. Showalter's intuition still proves more reliable than his morning fore-

cast as to whether she should hang out her laundry.

# L. A. FORUM MEETING

Milton W. Lewis, Consultant, and Phillip C. McConnell, Assistant General Manager for Arabian American Oil Co., were speakers at the evening Forum Meeting on May 19.

Mr. Lewis' talk, "History of Uses of Petroleum in California and Current Tideland Exploration", was the outcome of work for the State Lands Commission to prepare evidence in the controversy between the Enderal Covernment and the State of between the Federal Government and the State of California in the "Tidelands Case."

In 1951 the International Court of Justice ruled in favor of Norway in a territorial dispute between the United Kingdom and Norway. The case involved the validity, under international law, of the lines of delimitation of the Norwegian fisheries zone. Among other considerations in their summation, the judges ruled the following: "finally there is one consideration not to be overlooked, the scope of which extends beyond purely geographical factors: that of certain economic interests peculiar to a region, the reality and importance of which are clearly evidenced by a long usage".

Mr. Lewis then substantiated the fact that this part of the decision applied to use of petroleum in California. From prehistoric times, natives between the United Kingdom and Norway. The case

eum in California. From prehistoric times, natives have made extensive use of tar and asphalt in caulking their boats, making baskets, in the kitchen and as ornamentation.

The first well drilled in the tidelands or submerged lands of California of which there is any record, was drilled in 1877 at Summerland, Santa Barbara County. By 1906, a total of 412 had been drilled, most of which were drilled from wooden piers extending from the beach into the ocean.

Mr. Lewis then summarized action by the State of California for the development of oil and gas in tidelands and submerged waters of California.

The first State oil and gas leasing law in California was enacted May 25, 1921, and is found in Chapter 303 of the Statutes of 1921. This law provided for the issuance of prospecting permits and for preferential leases to permit holders when commercial production was demonstrated for all minerals on all State lands including Oil and Gas in Tide and Submerged Lands.

The first tideland oil and gas lease was issued on February 21, 1922, to Agnes S. Becker and covered 61 acres of tide and submerged lands at

Summerland.

In August, 1929, the State legislature created the Division of State Lands in the Department of Finance to succeed the office of Surveyor General. The first law governing State oil and gas leases was amended by Chapter 285 of the Statutes of 1923. also Chapter 7 of the Statutes of 1929; also Chapter Chapter 536 of the Statutes of 1929. The principal result of these amendments was that on and after September 1, 1929, no further applications

for permits to prospect for oil and gas on tide and submerged lands could be received by the State and no further leases for oil and gas development on tide and submerged lands could be issued by the State. No further legislation affecting State oil and gas leases was enacted until the State Lands

Act of 1938.

Between September 1, 1929, and June, 1938, no oil and gas leases could be issued by the State on tide and submerged lands. Due to production in the tide and submerged lands from trespassers at Huntington Beach, and in order to protect the interests of the State, special compromise Agreements and Easements were entered into between the State and the trespassers covering the continuation of such operations. These agreements provided for royalty payments to the State for all oil and gas and the tree payments are the state for all oil and gas and and produced from the Huntington Beach tide and submerged lands prior to March 1, 1934, and for the

## EXECUTIVE COMMITTEE, PACIFIC SECTION

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# PACIFIC PETROLEUM GEOLOGIST

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Next deadline June 23, 1952

continued payment of royalty on all such production

subsequent to that date.

The State Lands Act of 1938 was approved by the The State Lands Act of 1938 was approved by the Governor on March 24, 1938 and became effective June 11 1938. This act relates to all minerals including oil and gas in State lands; providing for prospecting for and taking minerals and for the extraction and removal of oil and gas therefrom; providing for the acquisition by purchase or condemnation of interests in privately owned lands to facilitate the operations provided for or contemplated by the act; creating a State Lands Commission, prescribing its powers and duties, and transferring to and vesting in the State Lands Commission the administration of and jurisdiction over State lands; administration of and jurisdiction over State lands; repealing acts or parts of acts in conflict there-with; and making an appropriation. The State Lands Act of 1938 did not provide

The State Lands act of 1938 did not provide for the issuance of prospecting permits for oil and gas on only lands of the State including the tide and submerged lands, but it did provide for leasing tide and submerged lands for oil prospecting and development under Sec. 86: "Whenever it appears to the commission that oil or gas deposits are known believed to be contained in our such lands and or believed to be contained in any such lands and may be or are being drained by means of wells upon adjacent lands owned by the State, the commission shall thereupon be authorized and empowered to lease any such lands, either as a tract or in parcels of such size and shape as the commission shall determine, for the production of oil and gas therefrom, in the manner provided in this article." from, in the manner provided in this will be the The State Lands Act of 1938 and all other

statutes relating to the State lands were re-enacted and codified in 1941 as Division 6 of the Public

Resources code without any major alterations as to oil and gas operations on tide and submerged lands.

As a result of the State Lands Act of 1928 there have been a total of 27 leases issued, including renewal and extension of leases. As of the first of January, 1952, 25 of these leases cover 11,811 acres of tide and submerged lands in California. Total cumulative production from all wells drilled in the tide and submerged lands is in excess of 218,000,000 barrels of oil.
Mr. McConnell told of exploration and produc-

tion in Saudi Arabia and described ways of life and problems inherent with living in a foreign country. Life in Arabia in the larger company settlements is not unlike in America because the operator, Arabian American Oil Co., chose not to adapt their way of life to existing native towns but started their own communities. At the present time there are about 5,600 Americans in Arabia including 2,500 employees, 1,000 wives and 1,000 plus children.

Production has been established in eight fields in Saudi Arabia, four of which are shut in for lack of facilities, although development drilling continues as rigs are available. The producing formation in each field is middle Jurassic lime and, tion in each field is middle Jurassic lime and, strangely enough, there is only one pay zone in a field. Sixty wells now on production yield a total of 500,000 to 600,000 B/D. The largest field, Abqaiq, is over 60 miles long and has 1,400 feet of structural relief. The "smaller" fields have only 700-800 feet of relief.

In mentioning discovery success, Mr. McConnell pointed out that 11 wildcats found 8 oil fields.

Mr. McConnell concluded his talk with a series of Kodachrome slides of Ceylon and the deserted city of Petra in southeast Palestine. Petra was located within the confines of a steep walled canyon some-what like Zion, from which the inhabitants made raids on caravans traveling through the Middle East. Teature of interest in the canyon is a series of beautifully carved temples cut out of the sheer walls of red sandstone.

#### SYMPOSIUM

The University of California jointly with the Earthquake Engineering Institute is presenting on Thursday, June 26th and Friday, June 27th, a Symposium on Earthquake and Blast Effects on Structures.

The papers are segregated into four groups, each of which will occupy approximately one half day, and the sessions are titled: Motion of Earthquakes; Blast Forces on Structures; Analysis of

Response of Structures; and Failure Observations.
Of particular interest to Petroleum Geophysicists is the first session which is to be held in Room 19 Chemistry Building, U.C.L.A. beginning at 9:30 A.M., Thursday morning, June 26th. The Chairman of this session is L. B. Slichter, Director of the Institute of Geophysics at U.C.L.A.; Dr. Perry The Chair-Byerly will speak on Earthquake Origin and Propogation. Dr. Frank Neumann will speak on Some General ized Concepts of Earthquake Motion. Dr. George W. Housner will speak on Spectrum Analysis of Strong Motion Earthquake Records.

An enrollment fee of \$5.00 for all or any part of the sessions is to be charged. The proceedings, which will be published subsequently, will be priced at \$4.50 per copy. Application either for attendance at the Symposium, or for a copy of the proceedings should be made to the University Extension, University of California, Los Angeles 24.

#### S. E. P. M. FIELD TRIP

Saturday, May 10th, one hundred or so paleon-tologists and geologists met at Greenfield, in the Salinas Valley, for a tour of the Reliz Canyon and the type section for the Relizian stage. Good out. crop exposures were seen from the Paso Robles formation through Pancho Rico, Santa Margarita, Monterey, Sandholdt, Vaqueros, Berry, "The Rocks", Lucia and Junipero formations.

On the outcrop in Reliz Canyon, flags were placed to mark stage boundaries on contacts between Delmontian-Mohnian, Mohnian-Luisian, Luisian-Relizian, and Relizian-Saucesian stages to provide good sampling opportunities.

The field trip was planned by a committee of Salinas Valley "old hands" under the leadership of Dick Thorup and Bob Kleinpell. Bob and Dick provided very informative talks at various stops on the tour.

At the lunch stop appropriate cold drinks were served to refresh the perspiring scientists.

# SANTA MARIA MEETINGS

Regular luncheon meetings of geologists in the area have been inaugurated in Santa Maria. The group meet on the first and third Thursday of each month at the Santa Maria Club. Any geologist visitors who happen to be in the vicinity on those days are welcome.

# PACIFIC SECTION DIRECTORY CORRECTIONS

Corrections listed here do not include corrections or additions which were accompanied by a photograph. All photographs and their data will be distributed subsequently.

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# PICNIC JUNE 6



At a luncheon meeting of the Petroleum group of the A.I.M.E., which was held at Mike Lyman's restuarant May 13th, local geologists far outnumbered the engineers to hear Dr. John Crowell of U.C.L.A. discuss "The San Gabriel Fault and its Role in Oil Accumulation." The talk, which has been modified in some respects since it was originally presented before the Coastal Geological Society in Santa Barbara in June, 1950, emphasized the evidence both for the existence of, and the probable right lateral movement of the San Gabriel Fault. Dr. Crowell presented evidence for renewed movement which in some instances is essentially left-lateral or dip alip and thus is in the opposite sense from the major displacement as indicated by mapping. The question was posed "What does a 20 to 25 mile right-lateral displacement mean? Does it mean that those rocks on the southwest side of the fault, at the east end of the Ventura Basin, are to be found on the northeast side of the fault? Or does it meen, that the fault itself marks a stratigraphic boundary and that those rocks which are on the southwest side of the fault are not represented on the northeast?"

These and other questions must wait for their answers until regional and detailed mapping in areas

These and other questions must wait for their answers until regional and detailed mapping in areas which perhaps are not too attractive from an immediate production standpoint, are thoroughly studied by competent geologists.

# REVIEW GEOLOGIC GUIDEBOOK OF SAN FRANCISCO BAY COUNTIES BULLETIN 154, STATE OF CALIFORNIA DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINES (Price \$2.50)

This Guidebook covers twelve counties in California, including the nine counties bordering San Francisco Bay and three more following the delta area of the Sacramento and San Joaquin rivers to the cities of Sacramento and Stockton. The publication describes the history, landscape, structural geology, paleontology, mineralogy, and routes of travel in the San Francisco Bay counties. A geologic map, a series of geologic travel logs, and a large number of separate articles, all written by authorities on their subjects and illustrated with a profusion of fine photographs and drawings are included.

The extremely interesting historical background tells the history of the Bay area from the time of Cabrillo to the discovery of gold at Coloma. Articles dealing with the origin of place names, old adobe houses, and old lime kilns are included in the historical background along with an excellent discussion of the native Indians of the Bay area,

discussion of the native Indians of the Bay area.

Professor G.D.Louderback ably describes the geologic history of the Bay itself, and Professor A.D. Howard discusses the development of the landscepe in the area. The actual geology of the area is very well covered and has recently been studied. Special attention is given to the faults and earthquakes in the area and abundant photographs showing the results of movements along the larger fault zones are included. The paleontology, both vertebrate and invertebrate, is complete; and numerous good collecting localities are described. A very colorful description of the prehistoric forests of the Bay area is given by Professor Chaney.

Bay area is given by Professor Chaney.

A resume of the mineral industry in the area introduces Part 5, and is followed by 13 articles which deal with separate various phases. In each article, the history, development, and economics of each industry are described in detail. Several pages are devoted to the all important water system in the area, including details of the San Francisco, East Bay, Contra Costa, Santa Clara Valley, Marin, Napa, Vallejo, and Sacramento systems.

Part 7, "Places to Go and Routes to Travel."

Part 7, "Places to Go and Routes to Travel." includes articles on the geology of the Farallon Islands, unusual minerals of the Bay area, and highways of particular geologic interest. Included in the latter are descriptions of the geology and points of interest along ten separate routes of travel, all of which are fully illustrated with drawings and photographs, such as the spectacular view of the landslide of December 9, 1950 on Tunnel Road between Oakland and Orinda.

Taken only as a book of short stories and pictures, the Guidebook is well worth the price of \$2.50; but as a complete scientific publication, it is worth many times that price. Copies may be obtained from the State of California, Department of Natural Resources, Division of Mines, Ferry Building, San Francisco.

# PERSONAL ITEMS

C. E. (Chuck) Kirschner has resigned from Union in Bakersfield to accept a job with Standard in San Francisco. Chuck-will probably be doing field work in Washington and Canada.

Tennant Brooks has been transferred to Elk Hills to replace John C. Wells, who will move to the San Francisco office of Standard as an Electric Log Specialist.

J. A. (Chris) Christensen has resigned from British American in Bakersfield to go with Pacific Western in Calgary, Canada.

B. G. Winter, of Superior in Bakersfield, was married April 19th to Miss Martha Clare, at the St. Francis Church, Bakersfield.

Bob and Joanne Scott, with Texas in Bakers-field, had an 8 lb.. 2 oz. boy April 30th.

Tom Dibblee, Jr., resigned from Richfield as of June 1st. Tom has moved to his Santa Barbara ranch where he will do part-time consulting and U.S.G.S. work.

Roy Johnston has resigned from Capital in Bakersfield, and has joined the Petroleum Engineering staff of Western Gulf in Bakersfield.

Doug and Charlene Wilson of Independent Exploration in Bakersfield had an 8 lb., 5 oz. boy, Mark, May 15th.

Bud Bryan has recently been appointed Valley Division Manager for Schlumberger, and has offices at 312 Haberfelde Building, Bakersfield.

R.M.(Mandy) Touring has joined the Humble staff in Bakersfield. Mandy received his Masters Degree from Stanford in '51, and previously worked with International in Peru.

Dan and Barbara Nolan, of Continental in Bakersfield, had a second boy, Daniel, 8 lb., 4 oz. May 13th.

Ken Evans is now doing Consulting at his home in Bakersfield, at 2525 Avenida Escuela, Phone 50038.

Don C. West, paleontologist with Stan Beck, and his wife Mary, have a new son, Donald, Jr., 5 lb., 13 oz.

E. G. (Ernie) Young, Tidewater in Bakersfield, is working in Regina, Saskatchewan, for a six months period.

About twenty of Harvey Lee's friends gave him a birthday party at Rodger Young Auditorium Monday noon, May 19th, complete with birthday cake inscribed "Happy Birthday Pappy".

Bill Mackersie is back in the L. A. office of Kern Oil as geologist after a sojourn with the U.S. Marine Corps.

Bob Erickson, recently returned from the Army reserve, is back with Standard in Coalings.

President "Tiger Stocks" Steiny conducted the field trip of the Oil Map Association. The trip was planned to go down the Santa Clara Valley, up through Ojai to Ventura. As we go to press they had reached Tips.

Dick Eckhart, Dartmouth '49 and graduate work at Stanford, formerly with U.S.G.S. in Alaska, is now a geologist with Sunray in Los Angeles.

The case of the traveling core-house, or why did Standard hold their N.L. & F. No. 6 core-party on Humble's E-1 location? Guess this illustrates a simple way to fathom no-dope holes at no risk to life and limb---just send a truck to swipe the core-house.

Ed and Sue Hamner, with Humble, celebrated the arrival May 24th of a 6 lb., 11 oz. baby girl, named Margaret Ellen.

#### PICO PICNIC

Mark your calendar with big red letters, shave your poker deck and oil your dice. Grab your bottle of Alka Seltzer and PREPARE FOR JUNE 6TH!!!

Don Six, Texas Company geologist, has been transferred to the Livermore area. This puts Don close to Mills College. Wedding bells in June?

Mrs. Jean Jensen, geologist with Richfield in Bakersfield, is resigning in expectation of a blessed event.

Harold and Dorothy Billman, Union Oil Co of Bakersfield, have adopted a little girl, Carolyn, born May 17th.

Ed Hafer has joined the Union Oil geological staff at Whittier.

Phil Cook has transferred from the Union Oil Exploration Department to the Field Department.

Harold Sullwold is leaving William Ross Cabeen and Associates and is planning to go on a vacation up the Alcan Highway into Alaska for a month. On his return in September he will begin work on his Doctorate at U.C.L.A.

Leo Herrera and Wayne Moen are doing field work for Shell, with home base in Santa Rosa.

Shell also reports that Bob Blocher and F.B. Conger are working in the Humboldt Basin, and living in Fortuna.

Recent visitors to the Northern California Geological Society Monday Luncheon in San Francisco included Bill Cartwright, with Tide Water Associated in Bakersfield, and Lauren Wright, Senior Mining Geologist with the Division of Mines in Los Angeles.

Sacramento guests in San Francisco on other occasions include Bob Carlson and Mike Rector, Union geologists, and Doug Hastings and Pete Gester with Standard.

Don Stone and Charity Murray were married in Sacramento on Saturday, May 3rd, in St. Paul's Episcopal Church. The reception was held in the Gold Room of the Hotel Senator. After a short honeymoon in Las Vegas' Desert Inn the newlyweds returned to Sacramento, where both are members of Standard's geological staff.

Layton Stanton and Mrs. Stanton, with Union in Sacramento, have returned from a three weeks' vacation cruise of Hawaii. Layton returned just a day before the Lurline strike tied up passenger service.

Roger Dungan, Conoco geologist from Ventura, has been renewing old friendships in the San Mateo - Santa Cruz area lately

Neil Waddell, with Texas, has been transferred from the L. A. Basin to Bakersfield to assist in the scouting and land department.

A serious jeep accident is expected near the Eocene outcrops on the San Emidio Ranch, due to the heavy traffic up that way since the Richfield discovery at Wheeler Ridge.

Jack and Jane Lavery, of Reserve Oil and Gas in Bakersfield, have a new son, Timothy John, 7 lb.

Bill Comstock, Vice President for Franco Western in Bakersfield, is resigning June 1st to go into business for himself as operator and consultant. Harry Campbell is taking over Bill's job.

#### BIOGRAPHY

It is fitting that the Pacific Section should have as a president a man whose family tree is deeply rooted in the Pacific Coast. Homer Steiny was born February 23, 1892 in Stockton, California.

a native son of a native son and native daughter. Grandfather Steiny, a sailor, beat his way around the Horn, and maternal Grandfather Farrington came across the Isthmus during the days of the Gold Rush. In 1912 Homer choose to enter Stanford University as a "Christmas Freshman" He allied himself with the class of 1915, pledged Zet Psi fraternity, and worked his way through school by driving a truck for a leather company.



HOMER J STEINY

Homer emerged from Stanford as one of the most

ardent Stanford rooters to come out of the "Farm". He was secretary of the Stanford Club of Los Angeles for seventeen years and a member of the alumni advisory board in 1938.

Upon graduation with a degree in geology, Homer decided to cast his lot with the rapidly growing petroleum industry. In 1918 he joined the Associated Oil Company and was sent to Fellows, California. He worked in Fellows during the early twenties, transferring to the general offices in San Francisco in 1921. In 1926 Homer was transferred to the Los Angeles offices as a scout, and later he became the Southern California District Geologist. On April 25th of this year he celebrated his 34th year of con-

tinuous service with the company.

Homer has been a member of the American Association of Petroleum Geologists since 1925, and during this time he has contributed generously of his time and energy to such committees as Picnic, Transportation, and National Conventions. He was the district representative for the Pacific Coast from

1936-1939.

In 1921 Maybelle Margaret Olerich, a graduate of UCLA, became Mrs. Homer Steiny; and their two boys, Jack and Tom, were Zetes at Stanford. Homer boasts of being twice a grandfather, Julie and Nancy.

He is a member of the Wild Cat Committee of the Western Oil and Gas Association and has been active in the annual Christmas Jinx for a number of years. Also, he is a member of the California Academy of Sciences, the University Club, and The Commonwealth Club of San Francisco. An ardent Republican, Homer is now active in Senator Knowland's campaign for reelection.

Homer rates himself as a poor card player and just a fair crap shooter, but the accuracy of this statement may be determined at Pico Canyon on June

Since the removal of a familiar land mark might cause some of the older hands to become lost in the wilds of Pico Canyon; Homer will again station himself at his regular post, roll of tickets in hand, ready to separate each picnic-goer from two dollars.

# GUIDEBOOKS & CROSS SECTIONS

A few field trip guidebooks prepared for the recent A.A.P.G. Convention are available: the price, \$6.00 per copy if picked up, \$6.50 per copy if mailed. Orders should be addressed to Rufus Smith, Secretary Treasurer, Pacific Section, A.A.P.G. Continental Oil Co., 601 West Fifth St., Los Angeles. Geologic Cross Sections through the L.A.Basin,

East and West Sacramento Valley, East Ventura Basin, and Salinas Valley are available for \$1.00 each if picked up or \$1.50, if mailed. Orders should be addressed to Mr. Jack West, Seaboard Oil Company,

612 S. Flower Street, Los Angeles, California.
All checks or money orders should be payable to the Pacific Section A.A.P.G.

# DOMINO CLIQUE

The Third Domino Tournament of the Petroleum Club of Los Angeles ended in an almost all Union Oil Company final when A. C. "Cy" Rubel and partner W. H. "Bill" Geis took the measure of Basil Kantzer and Sam Grinsfelder in a closely contested match. Winners of the Consolation bracket were Harold Hoots and M. Guy Edwards, consultants, who teamed together to defeat Willard F. Goertz, Axelson Manufacturing Co., and S. H. Oatway, Shell Oil Co., Inc Following completion of the matches, formal presentation of the prizes was made by S. Z. Natcher, Standard Oil Co of California, vice-president and chairman of the House Committee. Graydon Oliver, consultant, accepted the award on behalf of W. H. Geis, who was absent from the City when photographs of the teams were taken in the Clubrooms. This was the second finale match for the Rubel-Geis duo, who were runners\_up in the Second Club Tournament.

## CAL TECH NEWS

The Geological Sciences' faculty at the California Institute of Technology announces that Dr. Heinz A. Lowenstam has been appointed as Professor of Paleoecology at Cal Tech effective next fall. He succeeds Dr. C. W. Merriam, who has returned to the U.S.G.S.

Professor Lowenstam studied at Frankfort and Munich in his native Germany and came to this Country for graduate work and his Ph D degree from the University of Chicago. He was later employed as an Associate Geologist for the Illinois State Geoloan Associate Geologist for the Illinois State Geological Survey and presently is an Associate Professor of Geology at the University of Chicago. As a Paleoecologist Dr. Lowenstam has been intensely interested in "reef" research. He has been a frequent visitor to California, primarily as a geological consultant to the California Research Corporation of The Standard Oil of California at its La Habra laboratory He is a member of the Paleontological Society of America, the Ecological Society, the A.A.P.G. and the S.E.P.M.

# BRANNER CLUB MEETING

Dr. V. L. Vander Hoof, formerly on the geological staff at Stanford University and now geologist with Independent Exploration Co at Santa Barbara, was guest speaker at the Branner Club dinner meeting at Cal-Tech on April 22nd.

Dr. Vander Hoof's talk entitled "Earthquake Destruction in Northern California in 1906" was accompanied by a series of remarkable photographs

taken during the week following the great earth—
quake of April 19, 1906.

Many of the slides clearly showed the horizontal offset on the rift with views of displaced
fences, roads, barns and even houses. Perhaps the
lesson most graphically portrayed by the pictures
was the importance of proper building construction in prevention of damage by a severe earthquake. It is noteworthy that the inner quadrangle at Stanford, built by day labor under the watchful eye of Governor Stanford, suffered virtually no damage. The outer quadrangle, Memorial Church, gymnasium and library, built by contract after Stanford's death, were damaged to the extent of four million dollars in forty seconds.

The destruction shown by the 1906 photographs

seemed to show that some contractors built more commonly with a chisel than with a square.

# BAKERSFIELD SCOUT PICNIC

The Central California Oil Scouts Association will throw their annual barbecue-beer bust on Friday June: 20th. Festivities commence at 4:00 PM at the usual place, Shell Park in Bakersfield.

A golf tournament will precede the picnic from 10:00 AM to 2:00 PM. Price of the picnic is \$3.00; Golf tournament \$1.50 (including refreshments) Reservations, which are necessary this year,

should be accompanied by \$3.00 per ticket.
Reservations should be made by writing:
Central Calif. Oil Scouts Assn. Standard Oil Co.
c/o L.B. Groff, P.O. Box 1200. Bakersfield.

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"Part Played by Bacteria in Petroleum Formation." Claude E. ZoBell. pp. 42-49.

#### Journal of Paleontology. May 1952

"Symposium on Distribution of Evolutionary Explosions in Geologic Time." Edited by Lloyd G. Henbest.

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"Mendocino Submarine Escarpment." Henry W. Menard and Robert S. Dietz. pp. 266-277.

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## TRADE JOURNALS AND MISCELLANEOUS MAGAZINES

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"Thermal Differential Curves Reflect Subsurface Geology." Florent H. Bailey. pp. 77-78

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"Saskatchewan Oil Search Spurred by Medium Oil Discovery." pp. 120-121.

#### BOOKS

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\* Pacific Coast

PACIFIC PETROLEUM GEOLOGIST PACIFIC SECTION, A.A.P.G. ROOM 932 714 WEST OLYMPIC BLVD LOS ANGELES, 15 CALIFORNIA. RETURN POSTAGE GUARANTEED

Vol. 6 No. 6

# CALENDAR

June 3, 1952; Tues., 7:00 p.m., AAPC, San Joaquin Valley Geological Society Dinner Meeting, El Tejon Hotel, Bakersfield: John Hoke, geologist and geophysicist for Standard Oil, formerly a research chemist and physicist for Libby-Owens-Ford, "Organic Geochemistry, and the Formation of Oil."

June 5, 1952; Thurs., 12:00 noon, AAPG Pacific Section Luncheon, Rodger Young Auditorium, Los Angeles: Richard O. Stone, graduate student at USC, "Playa Lakes."

June 5, 1952; Thurs., 7:00 p.m., AIME, Dinner Meeting, Maison Jassaud, Bakersfield: Max Taves, development engineer for Richfield Oil, "Problems Concerned With Unitization of Oil Fields."

June 6, 1952; Fri., AAPG, Pacific Section Stag Picnic, Pico Canyon.

June 7, 1952; Sat., CNGA, June Frolic, Rio Hondo Golf Club, Downey.

June 10, 1952; Tues., 7:00 p.m., AAPG, Coastal Geological Society Meeting, Barbara Hotel, Santa Barbara: Forum on AAPG Geologic Names and Correlations Committee's Columnar Section of the Western Ventura Basin conducted by Lowell Redwine.

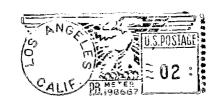
June 12, 1952; Thurs., 12:00 noon, SEG Luncheon; Rodger Young Auditorium, Los Angeles: Program to be announced.

June 12, 1952; Thurs., 6:30 p.m., AIME Junior Petroleum Group Dinner Meeting, Rio Hondo Country Club, Downey: Ernie Parks, Consulting Engineer, "Personal Recollection of Progress of Oil and Gas Production."

June 16, 1952; Mon., 7:00 p.m., AAPG Pacific Section Forum, Edison Building Auditorium, Los Angeles: J. R. Pemberton will show slides of his trip to Africa.

June 23, 1952; Mon., 7:30 p.m., AIME Pacific Petroleum Chapter Forum, General Petroleum Auditorium, Los Angeles: Loy Charter of Shell Oil Company, "Well Logging."

June 26-28, 1952; Thurs.-Sat., UCLA Seminar, Room 19, Chemistry Building, UCLA; Los Angeles: "Earthquake and Blast Effects on Structures."



Mr. Fred R. Neuman 381 E. 4th St. Chico California

# NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol.6

July 1952

No. 7

## ASSOCIATION ACTIVITIES

#### A.A.P.G. LUNCHEON

Mr. Richard O. Stone, graduate student at U.S.C., gave a most interesting talk entitled "Playa Lakes" before 45 members and guests at the regular luncheon meeting at Rodger Young Auditorium June 9th.

Playa or dry lakes are characterized by a flat, fine-grained surface that is often mudcracked. They occur throughout the world and there are about 300 of them in the western United States. Requirements for a playa to form include a basin with interior drainage and an excess of evaporation over run-off. The proportion of evaporation to run-off in the Basin and Range province is about 25 to 1.

Playas may be classified as dry or moist, depending on the depth to the water table.

The <u>dry</u> or clay pan type has a water table below 10 feet which is the approximate limit of capillary rise. They are dense and well packed and have a low salt content. They are said to have a "leaky" basin which permits water to escape downward. Muroc and Rodgers dry lakes are examples of dry playas.

The moist type has a water table above 10 feet and is characterized by a porous salt or clay encrusted surface layer up to 3 feet thick caused by evaporation of capillary water. Basins containing moist playas are "water tight".

Other types of playas include compound; those that have features of dry and moist, crystal body; those with crystalline crust over brine that were formed by evaporation of large Pleistocene lakes, such as Trona. The last type is artificial or those caused by man diverting water or deep pumping. Examples are Owens lake and Elsinore.

Mr. Stone pointed out that a study of playa sediments is important in order to recognize them in the geologic column or in well cores. Playa beds are commonly poorly sorted, sandy, silty clay. The amount of sand ranges from 5 to 25%, the silt from 5 to 35%, and the clay from 40 to 80%. The average grain size is 4 microns. The mineral content reflects the material of the surrounding mountains. Water soluble salts are found in most playas and they may make up to 34% of the total material. About 0.25% of the total is organic carbon. The Ph of the sediments is on the alkaline side and the oxidation and reduction factor indicates a strong oxidation environment.

Playa lakes are an important source of saline materials such as sodium carbonate and bicarbonate, sodium sulfate, calcium chloride and gypsum. Playas furnish a large part of the native clays used in rotary drilling mud. They are a source of groundwater and some have artesian flow. The firm, flat surface and isolated geographic location of dry playas provide excellent areas for testing equipment.

Mr. Stone concluded his talk with a series of Kodachrome slides showing examples of playas from various parts of the world.

#### BAKERSFIELD MEETING

John H. Hoke, Geologist and Geophysicist for Standard Oil Co., gave a very interesting talk on the subject "Organic Geochemistry and the Formation of Oil", before approximately 40 members and guests at the El Tejon Hotel, June 5th.

Mr. Hoke began his talk with a generalized discussion of the chemical composition of various domestic crude oils and had slides to show the relationship and groupings which can be made by chemical analysis. This was followed by some of the biochemical aspects of the probable source materials of the petroleum hydrocarbons and their probable alterations following deposition. A few of his conclusions are as follows:

- 1. Of the available organic material in sediments, less than one percent needs to be converted to hydrocarbons to provide all the oil that is estimated to be present in the earth.
- 2. Composition of oil suggests that the formation of oil results from a building-up process in the hydrocarbon chemical structure from the original organic materials rather than a breaking-down process.
- 3. Action of anerobic bacteria generally is a breaking-down process rather than building up, and therefore suggests that some process other than bacterial action is largely responsible for formation of oil.
- 4. Build-up of complex hydrocarbons may result from catalytic action following anion exchange under mildly alkaline conditions.
- 5. Under acidic conditions, anion exchange is retarded or stopped; consequently build-up process is held at a minimum, and break-down of hydrocarbons is likely to occur.
- 6. The farther the break-down proceeds, the more stable the hydrocarbons become and subsequent build-up, therefore, is less likely to occur. If the system, for any reason, ever becomes slightly acidic before build-up has occurred, it is unlikely that any organic material will ever be converted to the complex hydrocarbons of oil. The hydrocarbons of oil shales, for example, are relatively simple in structure, and appear to be the result of break-down of the original organic substances and it would seem, therefore, that there is relatively little chance of oil shale hydrocarbons ever changing by natural processes into oil.
- 7. The build-up process seems to take place relatively early, i.e., comparatively soon after the deposition of the organic material, but probably in the reservoir bed. Squeezing of organic source material in the reservoir bed, and subsequent building-up process there (under slightly alkaline conditions) is suggested. Development of oil in continental beds is therefore not precluded, but is less likely to occur, and probably only where continental reservoir beds are closely associated with marine beds (the probable source material).

# EXECUTIVE COMMITTEE, PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Homer J. Steiny Harold Sullwold Rufus M. Smith Frank B. Carter Mel Hill

President Vice-President Secretary-Treasurer Past-President San Joaquin Representative

# PACIFIC PETROLEUM GEOLOGIST

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Next Deadline July 28, 1952

#### NOTE

The Pacific Petroleum Geologist has been plagued since its inception in 1947 by copy which has had to be prepared on different, usually borrowed typewriters. The result of this has been, in many issues, to detract from the appearance and reduce the "readability" of the newsletter.

In order (we hope) to improve these qualities the staff is tentatively adopting this larger more open style of type, using a ribbon which is designed to give results particularly suitable for photo-reproduction, and utilizing an electric typewriter to give a constant weight character impression. We hope you like it.

# A.A.P.G. SPRING PICNIC

Congratulations and thanks are due Phil Cook, general chairman, and his willing workers for their fine work in handling the arrangements of the annual Pacific Section A.A.P.G. Picnic at Pico Canyon on June 6th. Phil reports 358 tickets were sold for the barbecue.

Success of the event was due in no small measure to generous contributions from B-J Services. Dunlap Welding and Bit Works, Homco, Johnston Testers, Inc., Kern County Land Co., Lane-Wells, Mercury Tool Co., Mojave Corp., Pacific Drilling Control, Pioneer Drilling Co., Rapid Blueprint, Reed Roller Bit Co., Santa Fe Drilling Co., Schlumberger and Security Engineering Co.

Co-chairmen of the Golf Tournament Stan Siegfus and Jack Beach report 49 members entered the golf match with Hunter Yarborough winning low gross prize of a dozen balls with a score of 71. R. J. Greene won a putter with his second place score of 82. Ed Bedford won low net with 64 while Bill Stoddard and John Loofbourow tied for 2nd with 68.

Tony Morris, chairman of the tennis tournament, reports that Lowell Redwine won the singles matches with Redwine and Dick Peryam combining to win the doubles.

#### S.E.G. MEETING

An S.E.G. luncheon meeting was held Thursday, June 12. at the Rodger Young Auditorium at which time Mr. Carl Savit of Western Geophysical Company discussed the present status of the velocity reports and problems affecting the group operations in California. One of the topics of discussion was the adoption and publication of the standard minimum well survey procedure for all groups surveyed. It was also generally agreed that for the guidance of future surveys an informal group could be formed to make for better coordination between the company performing the well survey and the well operator.

For these reasons it was decided to hold a meeting of members of the Cooperative Well Surveying Group immediately following the next S.E.G. luncheon meeting to be held July 10 at Rodger Young Auditorium. This meeting will take the place of a speaker at this time.

# OIL SCOUTS BARBECUE

Over 200 people gathered at Shell Park near Bakersfield to make the 1952 Scout Barbecue an outstanding success. Although there was plenty of good food and liquid refreshments, it is feared that many of the out of town guests returned with empty pockets. Homer Steiny gave out the numerous donated door prizes.

Results of the golf tournament preceding the barbecue are listed below.

Low gross: Frank Yule 40, Jack Kappeler 40. High gross: Frank Reynolds 77. Blind bogey-low net: Tom Barrow 26, Ross Phillips 29, Bob Torrey 31, Cliff Edmunson 33, Jim Wiley 34. High net: Ralph Brodek 48.

# N.C.P.R.T. BARBECUE

It has been said that if half a dozen oil men are located within a radius of a hundred miles. they will soon form some kind of organization and at the first opportunity have a barbecue.

The Northern California Petroleum Round Table was formed last year to exchange ideas and informationbetween geologists, scouts, and landmen active in the Sacramento area. The bi-monthly meetings have proved very successful. It's now time for a barbecue - to be held at the Yolo Fliers' Club on Friday, July 25, 1952. Early indications promise an event well attended by oil industry personnel interested in Sacramento Valley exploration. In addition to the barbecue dinner and refreshments, those attending may have the use of the country club's swimming pool and 9 hole golf course. There is a card room for those interested in less strenuous sports. Activities are slated to begin at 4:00 p.m., preceded by a blind bogie golf tournament at 1:00. A small green fee is required for those playing golf. Contribution toward the picnic costs is \$3.50

For reservations and further information any of the following representatives may be contacted:

Los Angeles: Earl Bescher, Humble Oil & Refining Co. (Phone MA 6-7701)

Bakersfield: E. W. Pease, Sunray Oil Corporation (Phone 3-0203)

Sacramento: Tom N. Wilson, Brazos Oil & Gas Company (Phone HU 1-3085)

San Francisco: Hubert Mee, Natural Gas Corporation (Phone DO 2-6721)

Reservations will be required for admittance.

Lowell Redwine, Honolulu Oil Corporation geologist from Santa Barbara, recently attended the Northern California Geological Society Monday luncheon in San Francisco. It was like old times for Lowell, as he was one of the founders and charter members of the organization seven or eight years ago.

Bruce C. Brooks has joined Bill Schlax in Superior's Willows office. Bruce is a recent USC graduate.

Wayne Eckert, Texas scout and landman, has been transferred from Los Angeles to the Sacramento office.

Standard Oil's Harry Nagle has been recalled to active duty in the Navy. Harry is a multiengine pilot and will take a refresher course in Dallas and San Diego.

Don I. Lawless, chief geologist for Bishop Oil Company, has recently been in San Francisco and Sacramento on a business trip. Don's home office is in Wichita, Kansas.

Floyd Naves has joined General Petroleum's geological staff in Sacramento.

B. R. (Swiss) Holmes, Shell's Sacramento scout, was a recent guest at the San Francisco Monday luncheon. Swiss has been working overtime lately with Union Oil's Bob Carlson as co-chairman of the Petroleum Round Table barbecue to be held at the Yolo Fliers' Club this month. Swiss says that early reports indicate a large attendance and it should be an excellent party.

Jim Kirby has joined George Cunningham in New York as exploration geologist for American Overseas Ltd., a Cal-Tex subsidiary. Jim formerly was with the Richmond Exploration Company in San Francisco.

A. S. (Ike) Holston has been pinch-hitting in Tide Water's San Francisco office for Fred Menken and Earl Dillon while those V.P.'s attend a two weeks meeting in Canada.

We were sorry to hear that Joe Sooter, Baroid engineer, was injured when the Baroid truck on the Tide Water O'Connel test was destroyed by fire. Joe averted more serious burns by jumping into the sump which extinguished his flaming clothing.

Roy Turner, of Intex Oil Company, and Marian Bettis were married on May 24, 1952, in San Bruno, California. This has taken one of the most eligible bachelors in geological circles out of circulation.

Bob Nesbit, The Texas Company, is proudly announcing the event of an income tax deduction in the nature of 6 pounds 6 ounces, all male, named Robert W., who was born on June 1, 1952. Incidentally, this was a daylight job and not at all in keeping with the wee small hour well calls.

Fred Porter has been transferred from L.A. to the Bakersfield Oceanic office.

The Association of Petroleum Wives in Bakersfield entertained members and guests at a Hawaiian Party given at the Racquet Club June 14th.

Dick and Mary Hester, of Signal in Bakersfield, have a new son, Gary Lee, born June 1st.

Don and Jean Marie Didier, of Ohio in Bakersfield, have a new son, Christopher Paul, born June 15th.

Mort Kline, senior student at the Colorado School of Mines, is working in the Geological Dept. for Oceanic in Bakersfield for the summer.

Bill Kleinpell and family are leaving for New Orleans to catch a boat there June 26th for an extensive trip through South America. They will be back in Bakersfield August 10th.

There are quite a few changes in Humble geologic personnel in Bakersfield. They have opened temporary offices in Green Acres with Jim McDonald and Charlie DeLancey, a recent transfer from L.A., as their production geologist. Andy Vidos and Mandy Touring have been transferred to the L.A. office. Nick Green, a recent grad of UCLA, has taken over Jim McDonald's job as Bakersfield scout, and will be located at the Humble Truxton Ave. office.

Alex Tarbet, Standard at Salinas, is too well supplied with housing at the present time. Unable to satisfactorily dispose of his home at Walnut Creek he finds himself with another - his new home in Salinas is ready for occupancy.

Two Texas Co. families have announced new additions since the last P.P.G. issue: Norris and Doris Saunders greeted a second daughter, Mary Janine, born May 26th in Bakersfield; and Robert Anthony arribed at the ranchito of Luis and Panchita Simon. It seems that T.T. Co's domestic production is being maintained at a high level.

Ida Dobler, of Standard and P.P.G. calendar editor is having a fine time fishing in the Yosemite area even though the catch ranges principally between the 3 and 6 inch variety.

The Ike Holstons, Tidewater Associated, and a party including the Tom Baileys, Consultant and Mrs. Jack Beach (Oceanic) recently met in Honolulu where they were victims of the strikes involving the Lurline. They had to change plans and fly back.

Big things will now be expected in the results from Standard's bug lab since it has been torn out of it's 6th floor corner and now occupies fancy new quarters on the mezzanine of the L.A. office.

Harry and Joy Jamison of Richfield at Olympia, Washington greeted the arrival of their second child, David, on Friday 13th. This makes a boy and a girl for the Jamisons.

Bill Quackenbush, formerly geologist with Union in the Gulf Coast and California, and recently returned from Korea where he served as Economics Officer with the United Nations Civil Command, is now geologist for the Continental Oil Co. in the Los Angeles Basin division.

William S. Comstock, consulting geologist and petroleum engineer, announces the opening of an office in the T.C. Cullen Bldg., Pierce Rd, near Highway 99, phone 4-2119.

William S. McBurnie has opened a new office for KRD at 1907 North Chester Ave., Bakersfield.

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"Use of Fossils in Geologic Information." June 1, 1952

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"Up-hole Times." J. P. Woods. pp. 229 -- 235

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"The Age of the 'Lower Cretaceous' from Bisbee, Arizona Uraninite." George W. Bain. pp. 305 -- 315

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### World Oil. June 1952

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"Petroleum - Then and Now." Paul D. Foote. pp. 280 -- 290

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Volume 6 No. 7

### CALENDAR

July 3, 1952; Thurs., 12:00 noon, AAPG, Pacific Section Luncheon, Rodger Young Auditorium, Los Angeles: Dick Mitchell and Archie Michaeljohn of the MDR Manufacturing Co., color and sound movies on modern gem cutting.

July 3, 1952: Thurs., 6:30 p.m., CNGA Dinner Meeting, Rio Hondo Country Club, Downey: Colored motion picture, "Corrosion in Action" presented by the International Nickel Co.

July 8, 1952: Tues., 7:00 p.m., AAPG, San Joaquin Valley Geological Society Dinner Meeting, El Tejon Hotel, Bakersfield: Dr. V. L. Vanderhoof, of Intex. "Early Geologic Maps of California."

<u>July 10, 1952</u>: Thurs., 12:00 noon, SEG Luncheon, Rodger Young Auditorium, Los Angeles: Informal discussion of "Problems Affecting the Well Velocity Group in California."

July 10, 1952: Thurs., 6:30 p.m., AIME Junior Petroleum Group Dinner Meeting, Rio Hondo Country Club, Downey: R. B. Teissler of Western Gulf Oil Co., "Western Gulf Oil Company Well Completion Practices."

<u>July 21, 1952</u>: Mon., 7:00 p.m., AAPG Pacific Section Forum, General Petroleum Auditorium, Los Angeles: Dr. Paul Goudkoff, consultant, "Outline of the Geology of Siberia."

July 25, 1952: Fri., 4:00 p.m., Northern California Petroleum Round Table Barbecue, Yolo Fliers' Club on Woodland-Madison road 3% miles west of U. S. Highway #99 W. Reservations required and may be made through areal representatives. Golf Tournament 1:00 p.m.

OT CALLE PROSTED 02:

Mr. Fred R. Neuman 381 E. 4th St. Chico California

## PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 6

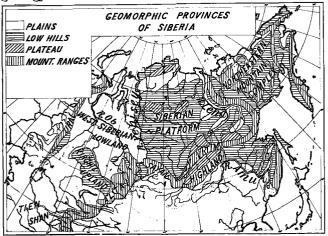
August 1952

No. 8

### ASSOCIATION ACTIVITIES

### GEOLOGY OF SIBERIA

At the July meeting of the L. A. group Dr.Paul Goudkoff, consultant in Los Angeles, spoke on the geology of Siberia.



After showing the map of the Geomorphic Provinces of Siberia, Dr. Goudkoff demonstrated the latest conception of Pre-Cambrian land and geosynclines, and a series of paleogeographic maps elucidating: a) gradual westward retreat of sea up to close of Carboniferous; b) new Transgression in eastern direction in N.E. part of the country during Permian, Triassic and Jurassic; c) new regression eastward started in Cretaceous, while Tertiary marine sediments were laid down only along the Pacific Coast (Kamachatka and Sakhalin) and near the eastern foothills of the southern part of Ural.

Discussing Quarternary deposits, the speaker emphasized the well proven fact of considerable glaciation of Siberia. He exhibited a Geologic Map of the country which was compiled in 1937. The outstanding features on the map are: 1) a sharp division by Yenisey River of the alluvium filled West Siberian Lowland from the Siberian Platform which is composed of nearly flat Early Paleozoic marine beds covered with Late Paleozoic continental coalbearing sediments, which are interbedded with "traps"; (plateau basalts) 2) Pre-Cambrian granites and metamorphics (Suess' Ancient Shield) south of the Platform; 3) Hercynian folds adjoining the Shield on the West and forming Altai, Kirghiz and Tien-Shan mountains (Suess' Young Shield); 4) Kuznetsk and Minussinsk coal basins filled two great grabens in Hercynian folds; 5) Jurassic and Cretaceous embracing the platform on N. N.E. and E.

In conclusion, two particular items of Siberian geology were mentioned: 1) The Physiography indicates that old folded ranges, like Altai, were long ago subjected to peneplanation, and their present topography is due to Pleistocene movements along a series of faults; 2) "Traps" form a well defined group of rocks varying in texture but all composed of plagioclase, augite, and iron rich olvine.

### EARTHQUAKE

In response to a request by the staff of the P.P.G. Dr. John Crowell of U.C.L.A., who was on the scene the morning of July 21st, offers some observations on the recent (and continuing) earthquakes.

Monday morning, July 21st, only a few hours after the first severe shock of the Tehachapi Earthquake, John Crowell, Vern McMath, and Ed U'Ren crossed US 99 from Castaic to Wheeler Ridge, and from there to Arvin and Tehachapi. Although the Ridge Route was blocked by a large landslide and broken oil pipeline about 8 miles south of Gorman, they bypassed the slide area on a pipeline road. At many places along the Ridge Route rockfalls had come down onto the highway during the quake. In Grapevine Canyon, for example, the highway was littered with large blocks dislodged from the steep hillsides. One block, larger than an automobile, had rolled across the divided highway after breaking through the reinforced-concrete dividing barrier.

The road between Arvin and US 466 (the Bakersfield-Tehachapi highway), paralleled a line of discontinuous small scarplets, which cut the mountain spurs northwest of Comanche Point, with a northeast strike. The fresh scarplets, which evidently had come into being that morning, ranged up to a maximum of about 2 feet in height, but usually appeared to be little more than a plowfurrow across the topography.

Where the fault crossed US 466 a couple of miles southeast of the intersection with the Arvin road, the black top was badly ruptured. The white line had been offset horizontally in a left-lateral direction a total of nearly a foot. In addition, there appeared to be a slight vertical component of displacement, down on the northwest. A mile or so south of this point, rockfalls continued to crash down the sides of steep canyons as the aftershocks continued. In fact, clouds of dust hung over slides all along the fault line.

Although radio reports suggested that the epicenter of the quake was in the neighborhood of Tehachapi, no fresh fault scarps could be found in Tehachapi Valley or bordering the nearby foothills. In view of this, and the presence of the conspicuous scarplets along the trace of the White Wolf fault, the three concluded that the earthquake focus was somewhere along that fault. During the afternoon the trio drove along portions of the Garlock and San Andreas faults, but no evidence of displacement during the quake could be discerned.

The three geologists were impressed with the fact that distress from the earthquake was related directly to the type of construction. Old brickfaced buildings, without adequate reinforcing, for example, collapsed in heaps of rubble in Tehachapi and Arvin, whereas nearby well-braced frame buildings came through essentially undamaged. In the middle of Tehachapi a new concrete and steel building was apparently undamaged, and its floor-to-ceiling plate glass window was not even broken.

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### PACIFIC PETROLEUM GEOLOGIST

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Next deadline Aug. 25, 1952

### A.A.P.G. LUNCHEON

Mr. A. B. Meiklejohn and Richard Mitchell of MRD Manufacturing Co. were guest speakers at the regular luncheon meeting on July 3. Their firm supplies grinding and other lapidary equipment for professional and amateur lapidists.

Mr. Meiklejohn stated that there are about 50,000 people in the Los Angeles area who have made a hobby of rock and mineral collecting. The increased interest in lapidary work is due in no small part to instruction classes offered in many public schools. Students generally progress from cutting cabochons from opaque minerals such as agate to facet-cutting transparent gems.

The introductory talk was followed by a sound color film showing the process of cutting and polishing a semi-precious stone for use in a brooch. It was evident from the film that the lapidary industry has kept pace with public interest by developing new machines and grinding powders to make the hobby easier and quicker.

Many geologists in the room resolved then and there to bring to light some of the rocks which have been gathering dust in the garage through the years.

### S.E.G. LUNCHEON

The Pacific Section of The Society of Exploration Geophysicists held their monthly luncheon meeting on Thursday, July 10, 1952, at the Rodger Young Auditorium in Los Angeles.

Dave Scott of The Texas Company announced that he was resigning as vice-president of the southern section in the light of his transfer to Houston, Texas, and that Ted Braun of The Superior Oil Company was assuming the vice-presidential duties.

Eleven out of eighteen members of the California Cooperative Well Velocity Surveying Group were present. The members in attendance proposed a committee of three to draw up a standard field procedure for shooting wells for velocity, and to recommend important wells for shooting which otherwise might be by-passed. Joe Waterman of Shell Oil Company was elected to represent the oil companies of the northern section and Phil Kempsky of Amerada was elected to represent the oil companies of the southern section. The member to represent the service companies is to be appointed at a later date.

### MEMORIAL

### ANDREW COWPER LAWSON 1861-1952

The death of Proffessor Lawson in Berkeley on June 16th marks the passing of one of the truly great minds in the field of geology, but the works of this great mind, as expressed in its contributions to this field, will remain for posterity. More formal memorials to Lawson will soon appear in scientific journals, but we wish here to pay some small tribute to a man who has had a profound effect upon Pacific Coast petroleum geology.

The effect in this branch of geology does not stem so much from his extensive and important publications in general geology as it does from the men who came under his influence at the University of California. Just a partial and random list would reveal such names as Clark and Steve Gester, Dick Nelson, Roy Morse, Tucky Taliaferro, Bill Kew, Sam Grinsfelder, John and Roy Hazzard, Mase Hill, Frank Morgan, Woody Woodford, Frank Hudson, Chester Stock, Tom Bailey, George Louderback, Bill Barbat, Bill Corey, Adolph Knopf, Jim Dorrance, Roy Barnes, John Buwalda, Fritz Davis, Clarence Moody, Frank Vaughan, Louie Waterfall, Bill Rand, Carroll Wagner, DeWitt Taylor, Jim Kimble, Earl Noble, Walt English, Ed Simpson, Hen Rea and a host of others. It goes without saying that these men are top hands at finding oil.

Prof. Lawson came to Berkeley in 1890 and thereafter developed the geology curriculum whose basic form and strength remain today. Thus his influence has extended, directly or indirectly, for 62 years. His active teaching continued until his retirement in 1928. A glance at the Announcement of Courses for 1905 indicates something of Lawson's versatility -- he taught "dynamical and structural geology", field geology, economic geology, petrography, petrology, physical geology of North America, geology of California, and a "seminary" in inorganic geology. This last was known (to the students) as the "King's seminar" and was the piece . de resistance of the curriculum. Here one learned to inquire critically into the literature of geology under the watchful, scholarly, and sometimes vitriolic man who was himself extending the frontiers of knowledge. If Lawson was sometimes impatient with a student's eager haste to gain paying control of his specialty, it was because he wisely realized that there were other fruits in the orchard of knowledge beside those growing on the geologic tree.

Of the more than 100 published papers by A. C. Lawson, many are still classics in fundamental geology and all are written with a lucid style and rhetorical control that, alas, is not common today. Lawson wrote on isostasy, submarine geology, geomorphology, seismology, areal geology, petrography and petrology, and mineralogy with seemingly equal ease and authority. His first paper, in 1885, was on the Pre-Cambrian geology of the Lake of the Woods region in Canada, and the first California publication was "Geology of Carmelo Bay" in 1893. This paper marked the author's founding of the University of California's Geological Bulletins and in it, Lawson remarked on the difference between the "geological record and recorded geology (he was trying to check Whitney's statement that at Carmel the Monterey is intruded by granite!). His paper on the "Geomorphogeny of the Tehachapi Valley System" is particularly appropriate at this time, especially the fault map in it.

Those of us who had the good fortune to be students of the "King" can now tell him, in all sincerity: Thanks, Andy, it was a rare privilege.

V. L. Vander Hoof

July 23, 1952

### IN MEMORIAM

### HOYT STODDARD GALE

Hoyt Stoddard Gale died on July 7, 1952 at his home in Eagle Rock, California, as the result of the worsening of a heart condition that had kept him from active field trips for more than a year.

Since receiving the degrees A.B. cum laude in 1900 and S.B. magna cum laude in 1902 (both from Harvard), Mr. Gale devoted a great part of his life to geology both professionally in the fields of oil and saline minerals, and unprofessionally in all fields of geology because he liked it regardless of commercial application.

He is best known to California oil geologists as the man who put the Gulf Oil Company into the oil business in California. As the representative of Gulf in California in the twenties, he drilled the first few Gulf wells under his own name. These early efforts as Gulf representative resulted in the discovery of Union Avenue and Fruitvale. The value to Gulf of the Fruitvale field is now known to all oil geologists.

All geologists will appreciate the abilities of a man whose field is represented in the range of achievement from U.S.G.S. Bulletin 285 A on "The Hahns Peak Gold Field of Colorado", (1906) through 23 Bulletins of the U.S.G.S. including "Potash Deposits of Spain", "The Origin of Colemanite" (Prof.Paper 85), the classic on "Nitrate Deposits", (Bull.523), and numerous others, including nine additional Bulletins of which he was co-author.

In addition to these official publications his colleagues are indebted for his ideas published in bulletins of the A.A.P.G., G.S.A., and others, and for his additional staff work in connection with all.

Since his retirement from Western Gulf in the early thirties he has enjoyed the respect not only of those in the oil business but also of those in all branches of geological science.

H. S. Gale's beneficial influence on past and contemporary thinking in geology exceeded that of his purely professional influence because of his fine character as a man and a kindliness in his nature, which permitted many not of his stature as a scientist to share with him his time in later years and to benefit from his experience.

He is survived by his wife and by a son, well known in geological circles, Hoyt Rodney Gale.

W. W. Porter II July 1952

### PERSONAL ITEMS

John Pujol, Geologist for Tide Water Associated, has been transferred from Bakersfield to the Sacramento Valley area and is temporarily working out of Woodland.

Don and Charity Stone have been transferred from Sacramento to Standard's Bakersfield office.

Howard Kinsey, Shell Geologist, has been transferred from Sacramento to Elma, Washington.

Alan Johnston, a new Standard employee, has been assigned to the Sacramento office. Al received his Masters Degree in Geology from Stanford in June.

Stan Knouse, Tide Water Associated Geologist, recently underwent an operation on his shoulder. His friends will be glad to know that Stan has been released from the hospital and is back on the job in San Francisco.

Tennant and Louise Brooks, Standard, Elk Hills, announce the birth of Allan Phillip, 9 lbs., 7 ozs., fourth boy, fifth child.

- E. L. (Swede) Erickson, western regional geophysicist for Continental, has been transferred to Calgary as Chief Geophysicist for Hudsons Bay Oil and Gas Co.
- R. L. (Bob) Sprinkel, has left Shell to work for Northern Pacific Railroad with headquarters in Billings, Montana. Bob had been with Shell for 15 years and was district geologist in Long Beach, prior to the change.

Charlie Prewett is now Long Beach district geologist for Shell, replacing Bob Sprinkel.

Bill Emerson, Wilshire, Bakersfield, is "working" in Wyoming for the summer. Expects to return when the snow flies.

British American is closing its Bakersfield geological office effective August 1, 1952. Clyde Cotton will be transferred to Los Angeles.

Jack Nisbett, recently of Stanford, is now a Richfield geologist in Bakersfield.

Norris Saunders has been transferred from the Texas Company's Bakersfield office to Los Angeles.

John Hale will leave Bakersfield August 18 to take over as Seaboard's Director of Exploration in Calgary. Jack West will probably move from the Los Angeles office to Bakersfield in the very near future.

Joe Ernst, Texas Company, has been transferred from Taft to King City.

Ray Arnett has rejoined Richfield after a tour of duty with the Marine Corps.

Rufus E. Cook, Standard of California, is being transferred from Salt Lake to Santa Maria. Rufus was formerly in Taft prior to the tour in Salt Lake.

Bud Ogle, formerly with Shell, has joined Ross Cabeen's group.

Bill Kennett of Superior is reportedly fine now and vacationing in Santa Cruz after sustaining a recent painful injury in an auto accident near Oklahoma City. The car in which he was riding was sideswiped causing his door to fly open and he ended up with his feet still in the car, holding on to the arm rest, but largely hanging out of the car. We've heard several terms applied to the nature of the injury, but basically it was a serious abrasion and burn. After 10 days in the hospital in Oklahoma, he had the experience of a train ride to L.A. on his stomach.

Dr. Olaf Jenkins and Dr. Gordon Oakeshott, Calif. Division of Mines, and "Doc" Hanna of Calif. Academy of Science, joined the many geologists flying over the Tehachapi-Arvin area to examine evidences of surface movement that occurred during the earthquake.

Jack Beach, Oceanic, left New York July 25th for a look at England, France, Switzerland, Italy, and the International Geological Congress in Algiers and Spain. Expects to return in early October.

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\* Pacific Coast

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### CALENDAR

Aug. 7, 1952; Thurs., 12:00 noon, AAPG, Pacific Section Luncheon, Rodger Young Auditorium, Los Angeles: D. Foster Hewett, Staff Geologist for USGS. "Structural Problems in the Mohave Desert."

Aug. 7, 1952; Thurs., 6:30 p.m., CNGA, Dinner Meeting, Rio Hondo Country Club, Downey: Robert Green, Regional Superintendent of Meteorology for TWA, "Meteorology as it Applies to Scheduled Airlines." Also a movie "Letter to a Pilot" shown by George Merriweather, City Sales Manager for TWA. Huntington Park.

Aug. 14, 1952; Thurs., 12:00 noon, SEG Luncheon, Rodger Young Auditorium, Los Angeles: Robert Mansfield, of United Geophysical, and Robert Davenport, "Geophysical and Geological Models."

Aug. 14, 1952; Thurs., 6:30 p.m., AIME, Junior Petroleum Group Dinner Meeting, Rio Hondo Country Club, Downey: Vernon Young, District Engineer for Haliburton Oil Well Cementing Co., "Comparison of Mid Continent and California Oil Well Cementing Practices."

Aug. 18, 1952; Mon., 7:00 p.m., AAPG, Pacific Section Forum, Edison Building Auditorium, Los Angeles: Program to be announced.

### FALL CONVENTION

The Fall Convention will be held at the Hotel Statler Oct. 30 and 31,1952. Mr. Ira Cram of the Continental Oil Co will be the principal guest speaker. The Convention Committeemen who have been appointed are: General Chairman, R.R.Simonson; Program Committee, F.D.Bode, J.E.Kilkenney, I.T. Schwade, M.R.Rector, R.F.Herron; Arrangements, A.T. Lee, J.W.Harding; Program Editor, L.J.Simon; Advertising, J.B.Hudson, A.W.Hughes, Ed Wellbaum; Exhibits, A.M.Gardner; Registration, T.E.Folsom; SEG Chairman, Pac.Section, W.L.Matjasic; Program Chairman, T.H.Braun; SEPM Chairman, Pac.Section, W.T. Rothwell.



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Composer, with a Chilly	Daver or form	Kralis, Den	Abilene, Texas	omission, octube si	Dan Flancisco
FULLERTON OIL COMPANY		Levorsen, A. I. (Lev)	Tulsa	CAPITAL COMPANY	
Hillis, Donuil L.	Hobbs, New Mexico	Lewis, Milton W.	Los Angeles	Wells, R. H.	Toe Argolog
McMillan, John R.	Pasadena	Lockwood, R. Bruce	Los Angeles	1100 mg 110	Los Angeles
Park, Stafford	Pasadena Pasadena	Losl, Wayne	Los Angeles	CARLISLE, F. M. AND ASSOCIATES (CRETE-O-LITE)	
Valentine, W. W.	Pasadena Pasadena	Macready, George A.	Inglewood	Carlisle, F. M. (Mack)	Whittier
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SHELL OIL						
SHEET OIL	GENERAL AMERICAN OIL COMPANY OF TEXAS		KERN COUNTY LAND COMPANY		PAULEY, E. W.	
ď	Milford, N. J. (Bill)	Taft	Brodek, Ralph E.	Bakersfield	Hatheway, Joseph G.	Hollywood
ď	GENERAL EXPLORATION COMPANY		KERN OIL COMPANY		PETERS LOGGING SERVICE	
ď	Ballantyne, R. S., Jr. (Dick)	Los Angeles	Stephens, R. J. (Joe)	Los Angeles	Patterson, Robert Owen	Bakersfield
d	Willis, Cornelius G. (Neal)	Los Angeles	Vandenberg, Frederick E.	Los Angeles	raterion, motore onto	Design B1 read
Ħ	warmen's comparation of (work)	TOS AUGOTOS	Ziegler, F. M.	Los Angeles	POMONA COLLEGE	
Ħ	GENERAL PETROLEUM CORPORATION		220Emp1 1 1 110	DO Ango 200	Shelton. John S.	Claremont
Ħ	Carter, F. B. (Frank)	Los Angeles	LANE WELLS		Woodford, A. O. (Woody)	Claremont
	Casey, Howard	Santa Maria	Baker, J. Shannon	Paramount	noomoray no or (noom)	
j.	Colvin, R. G. (Rod)	Bakersfield	Gardner, A. Maclay (Mack)	Paramount	RICHFIELD OIL COMPANY	
ĭ	De Maris, E. L. (Elmer)	Los Angeles	Higgs, Morton T. (Mort)	Los Angeles	Barnard, M. C., Jr. (Barney)	Bakersfield
, i	Edwards, C. D. (Chuck)	Ventura	Hill, R. C.	Paramount	Bishop, Wm. C. (Bill)	Ventura
1	Flynn, D. B. (Dan)	Los Angeles		1 02 0213 0115	Buchanan, R. A.	Bakersfield
7	Fritz, Bill	Ventura	LLOYD CORPORATION		Carlson, Stanley	Bakersfield
1	Ganong, R. A. (Dick)	Taft	Ogler, E. H. (Ed)	Ventura	Clark, Marie J.	Los Angeles
1	Gribi, E. A., Jr. (Ed)	King City	, (,		Conrad, S. D. (Stan)	Olympia, Washington
3	Hobson, Henry D.	Los Angeles	LOCKHART OIL COMPANY		Duggan, Helen G.	Long Beach
2	Johnson, Curtis H. (Curt)	Los Angeles	Earl, Glenn M.	Los Angeles	Eckis, Rollin	Los Angeles
3	King, V. H. (Vic)	Los Angeles	,	# <b>g</b>	Elliott, Wayne	Long Beach
- I	Lewis, W. D. (Bill)	Bakersfield	LONG BEACH CITY COLLEGE		Fine, S. F.	Ventura
1	Lupton, B. C.	Los Angeles	Kerr, A. R. (Al)	Long Beach	Hall, K. B. (Pete)	Ventura
1	Moore, Q. M. (Q)	Bakersfield			Hill, Mason L.	Los Angeles
ī	Orwig, E. R., Jr. (Bob)	No. Sacramento	LONG BEACH HARBOR DEPARTMENT		Jamison, H. C.	Olympia, Washington
3	Shade, Nevin R.	Los Angeles	August, George	Long Beach	Johnson, Clifton W.	Los Angeles
9	Smith, Victor	Los Angeles		5	Knowles, Gerald	Bakersfield
9	Swayze, R. O. (Ron)	Los Angeles	LONG BEACH OIL DEVELOPMENT COMPANY		Le Conte, Joseph	Bakersfield
3	Wadsworth, F. Lowry	Los Angeles	Gentry, A. W. (Bob)	Long Beach	Mathews, J. W. (Bill)	Bakersfield
	Wagner, Carroll M.	Los Angeles	•••	. 3	Morgan, Frank A.	Los Angeles
Ė	Webb, Byroz K.	Taft	LOS ANGELES VALLEY JUNTOR COLLEGE		Natland, Manley L.	Long Beach
1	Whitaker, M. T. (Milt)	Los Angeles	Slosson, James E.	Van Nuys	O'Flynn, J. B. (Jim)	Bakersfield
3	Woods, Robert	Los Angeles		-	Pearson, E. Ray	Los Angeles
4		_	LYTLE, ROBERT F.		Porter, Lawrence E.	Los Angeles
Ş	GEOPHYSICAL ENGINEERING CORPORATION		Angust, John	Los Angeles	Record, W. R., Jr. (Walt)	Calgary, Alberta
9	Soske, J. L. (Josh)	Pasadena			Rothwell, W. T. (Tom)	Long Beach
8	· ·		McCULLOUGH TOOL COMPANY		Ryan, Ben W.	Casper, Wyoming
4	GEOPHYSICAL SERVICE INC.		Larson, W. Edward	Los Angeles	Schwade, Irving T.	Bakersfield
3	Dunlap, R. C., Jr. (Bob)	Dallas, Texas			Stewart, Sam	Calgary, Ablerta
1	Dyk, Robert	Denver	M. J. M. AND M. OIL COMPANY		Travers, W. J., Jr. (Bill)	Los Angeles
3	Ellsworth, T. P. (Ted)	Bakersfield	D'Evelyn, Morton N.	Bakersfield	Warne, A. H. (Arch)	Bakersfield
19			Forrest, L. C.	Bakersfield	Wells, R. J. (Bob)	Bakersfield
Ŋ	GOLDEN GATE PETROLEUM COMPANY				Wiese, John H. (Johnny)	Casper, Wyoming
	Pickrell, Daniel J.	San Francisco	MOHAWK PETROLEUM CORPORATION			
SIGNAL OI			Mead, Roy G., Jr.	Bakersfield	RICHMOND PETROLEUM COMPANY OF CALIFORNIA	
	GULF OIL CORPORATION				Findlay, W. A. (Bill)	San Francisco
I.	Crouch, R. W. (Bob)	Houston, Texas	MONTEREY OIL COMPANY	_,		
g	McNaughton, D. A. (Dunc)	Houston, Texas	Baldwin, Tom	San Ardo	RIVERSIDE CEMENT COMPANY	
E	HANGOUT ATT COMPANY		Fackler, John H. (Johnny)	San Ardo	Petrie, Jerome B.	Alpine, Texas
N	HANCOCK OIL COMPANY		O'Brien, Jerome J. (Jerry)	San Antonio, Texas		
ľ	Harding, J. W., Jr. (Jack)	Long Beach	Pyle, Howard C	Long Beach	ROTHSCHILD OIL COMPANY	
<u>P</u>	Huey, A. S. (Art)	Long Beach	Rist, Robert L. (Bob)	Bakersfield	Shuler, E. H. (Ed)	Santa Fe Springs
P	Klemme, Daniel N.	Long Beach				

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ROYALTY	UNION OIL COMPANY (Cont.)		THE THIRD COMPANY		SOUTHERN CALIFORNIA GAS COMPANY
HUYALTI	Greene, R. G. (Scotty)	Los Angeles	THE TEXAS COMPANY	Taft	Riegle, John, Jr.
ĺ	Greenwalt, W. A., Jr. (Bill)	Orcutt	Angel, Loren H.	Taft	THE COLUMN TWO IS NOT THE COLUMN TWO
Í	Grinsfelder, Sam	Los Angeles	Ashauer, Hans F.		SOUTHERN CALIFORNIA PETROLEUM COF
ST. ANI	Hacker, R. N. (Hack)	Santa Paula	Baddley, E. R.	Los Angeles	Bundy, Douglas
DI. A	Hall, E. A. (Ed)	Santa Paula	Bode, F. D. (Dashy)	Los Angeles	Crackel, Vern
	Harkness, Dorothy V.	Los Angeles	Cohn, A. A., Jr. (Art)	Los Angeles	Hayes, Paul L.
SAN MAR	Hawley, Arthur S. (Art)	Bakersfield	Dorrance, J. R. Ernst, Joseph	Los Angeles Brawley	STANDARD OIL COMPANY
	Hazzard. John C.		Frazier, Irvin (Irv)	Los Angeles	Anderson, Howard T.
		Los Angeles	Freeman, L. B.	Santa Paula	Arleth, Karl
SAWYER	Kilkenny, John E.	Los Angeles	Grivetti. Rex M.	Bakersfield	Bailey, J. P. (Jim)
	Lee, Harvey W.	Los Angeles	Hamill, J. M.	Los Angeles	Bainton, J. D. (Jack)
	Manlove, C. F. (Charlie)	Denver	Harris, Paul B.	Sacramento	Barbat, W. F. (Bill)
SCHLUME	Maxwell, Joe M.	Bakersfield	Herring, D. G., Jr. (Don)	Los Angeles	Barlow, William R.
	McCullough, Joe J.	Orcutt	Herron, R. F. (Bob)	Santa Paula	Beckman, Godfrey C.
	Moran, W. R. (Bill)	Los Angeles	Hughs, W. S.	Hollister	Bemis, H. C. (Hal)
	Quackenbush, Wm. M.	Whittier	King, Bill	Santa Paula	Bengston, C. A. (Andy)
i i	Rand, W. W. (Bill)	Santa Barbara	Laiming, Boris	Los Angeles	Brooks, T. J.
	Rector, M. R. (Mike)	Sacramento	MacMillan, A. J.	Bakersfield	Burtner, Evan H.
	Rutherford, Vernon E.	Santa Paula	Myron, K. E.	Taft	Cook, Rufus E.
SCRIPPS	Samsel, Howard	Whittier	Nésbit. Bob	Santa Paula	Crandall, K. H. (Pete)
ì	Sherborne, John E.	Brea	Nicolai, F. H. (Nic)	Taft	Dobler, Ida M.
	Sklar, M. (Maury)	Bakersfield	Palmer, Richard B. (Dick)	Bakersfield	Doell, E. C. (Ed)
ļ	Smith, James A.	Calgary, Alberta	Parsons. Jesse H.	Taft	Dorwart, George M.
	Stanton, W. Layton (Layt)	Sacramento	Peyser, Gladys M.	Taft	Driver, Herschel L.
SEABOAR	Turner, F. E.	Hollister	Saunders, Jim	Paso Robles	Fryar, Tilden
	Watson, E. A. (Liz)	Whittier	Saunders, Norris	Los Angeles	Gester, G. C. (Clark) -
į	Wissler, S. G. (Stan)		Scherb, Ivan W.		Gester, Peter
i	Woodward, A. F. (Al)	Los Angeles Whittier	Scott, D. H. (Dave)	Bakersfield	Gester, Stephen H.
į	11000000 1, 11 (A1)	whittier	Scott, Robert B.	Los Angeles	Gilbert, Orrin W.
	UNION PACIFIC RAILROAD COMPANY			Los Angeles	Gross, T. C. (Tom)
	Barker, W. K. (Bill)	Los Angeles	Simon, L. J.	Los Angeles	Higgins, J. W. (Jim)
	Osborne, Lee S.	Los Angeles	Snedden, Loren B. Van Gundy, C. E.	Los Angeles	Hoke, John
1		nos Angeles		Los Angeles	Holman, W. H. (Bill)
	UNITED EXPLORATION COMPANY		Watson, S. E., Jr. (Sam)	Bakersfield	Ivanhoe, L. F., Jr. (Bus)
ļ	Peterson, A. F. (Pete)	Bakersfield	TIDE WATER ASSOCIATED OIL COMPANY		Kirschner, C. E. (Chuck)
HELL O	, , , , , , , , , , , , , , , , , , , ,	PHACIBITETA	Cameron, T. W. (Tom)	Bakersfield	Knapp, R. R. (Bob)
JIIIII Q	UNITED GEOPHYSICAL COMPANY		Carson, Carlton	Ventura	Kriz, Stan
i	Agee, Flint H.	Pasadena	Church, C. C. (Cliff)	San Francisco	Leith, C. J. (Jay) Lindblom, Robert
1	Denning, Wayne H.	Pasadena	Cortright, W. D. (Bill)	Bakersfield	Lund, Gage V.
!	Hoover, Herbert, Jr. (Herb)	Pasadena	Dillon, W. E. (Earl)	San Francisco	Mann, J. A. (Johnnie)
1	Morris, L. K. (Larry)	Pasadena	Diven, Quay S.	Los Angeles	McMichael, L. B. (Brad)
i	Smith, Maurice G.		Foss, C. D. (Chuck)	Ventura	Merrill, W. R. (Bill)
į	Sorge, B. W. (Bart)	Pasadena	Holston, A. S.	Los Angeles	Moody, Graham B.
	corpe, p (part)	Pasadena	Jensen, Joseph (Joe)	Los Angeles	Owens, Lloyd D.
	UNIVERSAL CONSOLIDATED OIL COMPANY		Kappeler, Jack	Paso Robles	Paap, Antonie (Tony)
į.	Follansbee, G. S., Jr. (Duke)	Los Angeles	Knouse, W. (Stan)	San Francisco	Parker, E. S.
1	McFarland, Lee C.	Los Angeles	Marier, Elbert L.	San Anselmo	Radar, E. Harold (Hal)
	,	тов вийстея	Menken, F. A. (Fred)	San Francisco	Reed, E. T.
1			Neel, H. H. (Hank)	Ventura	Ruth, John W.
			Siemon, Paul	Bakersfield	Scouler, Allen B.
			Steiny, Homer J.	Los Angeles	

CORPORATION

- Retired -Bus) ck)

Los Angeles

Los Angeles Los Angeles Midland, Texas

Los Angeles San Francisco Los Angeles Taft San Francisco Taft San Francisco Bakersfield Los Angeles Tupman Bakersfield Salt Lake City Sait Lake City
San Francisco
Los Angeles
Los Angeles
11-C Camp, Taft
Los Angeles Los Angeles Berkeley Sacramento San Francisco La Habra King City Bakersfield Merced Merced
Los Angeles
Bekersfield
Olympia, Washington
Los Angeles
Los Angeles
Los Angeles
Bekersfield San Francisco Bakersfield Bakersfield Ojai San Francisco Bakersfield Bakersfield 11-C Camp, Taft Los Angeles Taft Los Angeles Taft

UNIVERSITY OF CALIFORNIA Durham, J. Wyatt Kleinpell, R. M. (Bob)	Berkeley Oakland
UNIVERSITY OF CALIFORNIA AT LOS ANGELES Bouman, Edgar Crowell, John C. Durrell, C. Grant IV, U. S.	Los Angeles Los Angeles Los Angeles Los Angeles
Lion, Harold Putnam, William C. (Bill)	Los Angeles Los Angeles
UNIVERSITY OF SOUTHERN CALIFORNIA Bandy, O. L. Clements, Thomas Easton, W. H. (Bill) Emery, K. O. Wozab, D. H.	Los Angeles Los Angeles Los Angeles Los Angeles Los Angeles
V. AND E. MANUFACTURING COMPANY Vaughan, F. E. (Frank)	Pasadena
WASHINGTON STATE COLLEGE Culver, Harold E.	Pullman, Washington
WEST AMERICAN OIL COMPANY Patterson, G. B. (Pat)	Long Beach
WESTERN GEOPHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry	Los Angeles Los Angeles
WESTERN GULF OIL COMPANY Bell, Gordon R. Clement, Paul F. Day, Paul Hanson, H. C. Hill, M. J. (Mel) Johnston, R. L. (Bob) Ledingham, Glén W. Marin, R. A.	Santa Maria Cillette, Wyoming Santa Maria Bakersfield Los Angeles Bakersfield Los Angeles Fruitvale
WILSHIRE OIL COMPANY MacLeod, Thomas L., Jr. (Mac) Pickett, E. S. (Ed) Tompkins, Jack Q.	Los Angeles Casper, Wyoming Midland, Texas

### UNSPECIFIED AFFILIATION

Anderson, Fred D.

Anderson, T. I.

Anderson, T. I.

Bond, L. A. (Lew)

Caldwell, D. L. (Dave)

Crum, Donald L.

DeRoch, W. G.

Dolan, H. K.

McCollom, C. R. (Retired)

Potspenko, G. W.

Rathwell, H. B.

Sant Barbara

Oakland

DeRoch, W. G.

Los Angeles

Los Angeles

La Jolla

Potspenko, G. W.

Pasadena

Rathwell, H. B.

Smith, Bernice Y.

Stoner, R. C.

Tuttle, Helen Fowler (Retired)

Minterer, E. L.

Sante, Sa

### UNSPECIFIED AFFILIATION

Santa Barbara Tarzana San Marino Fallbrook Cakland

Los Angeles Casper, Wyoming La Jolla Pasadena Paradise

Long Beach
Berkeley
Los Angeles
Los Angeles
Los Angeles

Anderson, Fred D.
Anderson, T. I.
Bond, L. A. (Lew)
Caldwell, D. L. (Dave)
Crum, Donald L.
DeKoch, W. G.
Dolan, H. K.
McCollom, C. R. (Retired)
Potapenko, G. W.
Rathwell, H. B.
Smith. Bernice Y.

Saint, Sernice 1.
Stoner, R. C.
Tuttle, Helen Fowler (Retired)
Waltman, W. D.
Winterer, E. L.

Smith, Bernice Y.

UNIVERS	ITY OF CALIFORNIA	
	Durham, J. Wyatt	Berkeley
	Kleinpell, R. M. (Bob)	Oakland
UNIVERS.	ITY OF CALIFORNIA AT LOS ANGELES	Los Angeles
	Boxman, Edgar	Los Angeles
	Crowell, John C.	Los Angeles
	Durrell, C. Grant IV, U. S.	Los Angeles
	Lion, Harold	Los Angeles
	Putnam, William C. (Bill)	Los Angeles
	Consul, "III am o. (DIII)	non migora
UNIVERS	ITY OF SOUTHERN CALIFORNIA	
	Bandy, O. L.	Los Angeles
	Clements, Thomas	Los Angeles
	Easton, W. H. (Bill)	Los Angeles
	Emery, K. O.	Los Angeles
	Wozab, D. H.	Los Angeles
V. AND	E. MANUFACTURING COMPANY	
	Vaughan, F. E. (Frank)	Pasadena
WASHTWY	TON STATE COLLEGE	
MEDITING		
	Culver Harold E.	Pullman, Washington
	Culver, Harold E.	Pullman, Washington
WEST AM	Culver, Harold E. ERICAN OIL COMPANY	Pullman, Washington
west am	•	Pullman, Washington Long Beach
	ERICAN OIL COMPANY Patterson, G. B. (Pat)	
	ERICAN OIL COMPANY Patterson, G. B. (Pat) GEOPHYSICAL COMPANY OF AMERICA	Long Beach
	ERICAN OIL COMPANY Patterson, G. B. (Pat) GEOPHYSICAL COMPANY OF AMERICA Gerdes, Carl H.	Long Beach Los Angeles
	ERICAN OIL COMPANY Patterson, G. B. (Pat) GEOPHYSICAL COMPANY OF AMERICA	Long Beach
western	ERICAN OIL COMPANY Patterson, G. B. (Pat) GEOPHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry	Long Beach Los Angeles
western	ERICAN OIL COMPANY Patterson, G. B. (Pat) GEOPHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry GULF OIL COMPANY	Long Beach Los Angeles Los Angeles
western	ERICAN OIL COMPANY Patterson, G. B. (Pat) GEOPHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry GULF OIL COMPANY Bell, Gordon R.	Long Beach Los Angeles Los Angeles Santa Maria
western	ERICAN OIL COMPANY Patterson, G. B. (Pat) GEOPHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry GULF OIL COMPANY Bell, Gordon R. Clement, Paul F.	Long Beach Los Angeles Los Angeles Santa Maria Gillette, Wyoming
western	ERICAN OIL COMPANY Patterson, G. B. (Pat) GEOPHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry GULF OIL COMPANY Bell, Gordon R. Clement, Paul F. Day, Paul	Long Beach Los Angeles Los Angeles Santa Maria Gillette, Wyoming Santa Maria
western	ERICAN OIL COMPANY Patterson, G. B. (Pat)  GEOFHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry  GULF OIL COMPANY Bell, Gordon R.  Clement, Paul F. Day, Paul Hanson, H. C.	Long Beach  Los Angeles  Los Angeles  Santa Maria  Gillette, Wyoming Santa Maria Bakersfield
western	ERICAN OIL COMPANY Patterson, G. B. (Pat) GEOPHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry GULF OIL COMPANY Bell, Gordon R. Clement, Paul F. Day, Faul Eanson, H. C. Hll, M. J. (Mel)	Long Beach Los Angeles Los Angeles Santa Maria Gillette, Wyoming Santa Maria
western	ERICAN OIL COMPANY Patterson, G. B. (Pat) GEOPHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry GULF OIL COMPANY Bell, Gordon R. Clement, Paul F. Day, Paul Hanson, H. C. Hill, M. J. (Mel) Johnston, R. L. (Bob)	Long Beach  Los Angeles  Los Angeles  Santa Maria Gillette, Wyoming Santa Maria Bakersfield Los Angeles Bakersfield
western	ERICAN OIL COMPANY Patterson, G. B. (Pat) GEOPHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry GULF OIL COMPANY Bell, Gordon R. Clement, Paul F. Day, Faul Eanson, H. C. Hll, M. J. (Mel)	Long Beach  Los Angeles  Los Angeles  Santa Maria Gillette, Wyoming Santa Maria Bakersfield Los Angeles
Western Western	ERICAN OIL COMPANY Patterson, G. B. (Pat)  GEOPHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry  GULF OIL COMPANY Bell, Gordon R. Clement, Paul F. Day, Paul Hanson, H. C. Hill, M. J. (Mel) Johnston, R. L. (Bob) Ledingham, Glen W. Marin, R. A.	Long Beach  Los Angeles  Los Angeles  Santa Maria Gillette, Wyoming Santa Maria Bakersfield Los Angeles Bakersfield Los Angeles
Western Western	ERICAN OIL COMPANY Patterson, G. B. (Pat)  GEOFHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry  GULF OIL COMPANY Bell, Gordon R. Clement, Faul F. Day, Faul Hanson, H. C. Hill, M. J. (Mel) Johnston, R. L. (Bob) Ledingham, Clen W. Marin, R. A.	Long Beach  Los Angeles  Los Angeles  Santa Maria Gillette, Wyoming Santa Maria Bakersfield Los Angeles Bakersfield Los Angeles Fruitvale
Western Western	ERICAN OIL COMPANY Patterson, G. B. (Pat)  GEOPHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry  GULF OIL COMPANY Bell, Gordon R. Clement, Paul F. Day, Paul Hanson, H. C. Hill, M. J. (Mel) Johnston, R. L. (Bob) Ledingham, Glen W. Marin, R. A.  E OIL COMPANY Macleod, Thomas L., Jr. (Mac)	Long Beach  Los Angeles  Los Angeles  Santa Maria Gillette, Wyoming Santa Maria Bakersfield Los Angeles Bakersfield Los Angeles Fruitvale  Los Angeles
Western Western	ERICAN OIL COMPANY Patterson, G. B. (Pat)  GEOFHYSICAL COMPANY OF AMERICA Gerdes, Carl H. Salvatori, Henry  GULF OIL COMPANY Bell, Gordon R. Clement, Faul F. Day, Faul Hanson, H. C. Hill, M. J. (Mel) Johnston, R. L. (Bob) Ledingham, Clen W. Marin, R. A.	Long Beach  Los Angeles  Los Angeles  Santa Maria Gillette, Wyoming Santa Maria Bakersfield Los Angeles Bakersfield Los Angeles Fruitvale

### CORRECTIONS

# PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS Directory of Members by Affiliation

Page No.	Company	Additions
2	CALIF. STATE DIV. OF MINES	Jennings, Charles W., San Francisco
6	CONTINENTAL OIL COMPANY	Quackenbush, Wm. M., Los Angeles
6	FORMATION LOGGING SERV. CO.	Patterson, Robert O., Bakersfield
8	HUMBLE OIL & REFINING CO.	De Lancey, Charles S., Bakersfield (change in location only)
8	HUMBLE OIL & REFINING CO.	Yarborough, Hunter(correction in spelling of name only)
8	KANSAS STATE COLLEGE	Walters, Phil, Mangattan, Kansas(add location only)
10	OCEANIC OIL COMPANY	Porter, F. C. (Fred), Bakersfield(change in location only)
12	SHELL OIL COMPANY	Egan, Joseph L., Long Beach
15	SUPERIOR OIL COMPANY	Brooks, Bruce C., Willows
16	THE TEXAS COMPANY	Anderson, T. I., Santa Maria
16	THE TEXAS COMPANY	Eckert, Wayne, Sacramento
16	THE TEXAS COMPANY	Scott, Robert B., Bakersfield(change in location only)
16	TIDEWATER ASSOCIATED OIL CO.	Saunders, J. M. (Jim), Paso Robles
18	UNITED GEOPHYSICAL COMPANY	Martin, Lincoln A., Pasadena
19	UNIVERSITY OF CALIFORNIA AT L.A.	Lian, Harold (change spelling from Lion to Lian)
19	WESTERN GULF OIL COMPANY	Elliott, Paul L., Los Angeles
20	UNSPECIFIED AFFILIATION	Anderson, Fred D., Los Angeles (change in location only)
Page No.	Company	Deletions
11	PETERS LOGGING SERVICE	PETERS LOGGING SERVICE
16	THE TEXAS COMPANY	Patterson, Robert Owen Saunders, Jim
18	UNION OIL COMPANY	Quackenbush, Wm. M.

Anderson, T. I.

20

UNSPECIFIED AFFILIATION

## PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

VOL. 6

September 1952

No. 9

### ASSOCIATION ACTIVITIES

### FALL CONVENTION

The twenty-ninth annual meeting of the Pacific Section of the American Association of Petroleum Geologists, Society of Exploration Geophysicists and Society of Economic Paleontologists and Mineralogists will be held jointly at the Statler Hotel, Los Angeles, Thursday and Friday, October 30 and 31st.

Mr. Ira H. Cram, vice president of the Continental Oil Co. will be the principal speaker and will talk on "Oil Exploration". Papers of local interest are in the process of preparation and exact titles will be announced at a later date by the program committee.

The general A.A.P.G. session on both days will be in the Golden State room. Thursday morning the S.E.P.M. will hold a technical meeting in the New York room and their annual dinner meeting will be in the Los Angeles room that evening. Mr. J. Morgan Davis, National A.A.P.G. President will be the guest speaker for the luncheon meeting on Thursday in the Los Angeles room. The S.E.G. is having a half-day session on Friday morning in the New York room and luncheon in the Los Angeles room. Alumni luncheons are scheduled for Friday noon. Manny Harnon's music has been engaged for the dinner dance which will be held in the Pacific Ballroom Friday evening. A short floor show will be given during intermission at the dance.

This year an attempt is being made to finance the convention by securing advertising in the printed program and selling exhibit space at the convention. If proceeds from the exhibit booths and advertising in the program are as great as expected, the oil companies will be not be asked for donations to support the convention. Joe Hudson, Aden Hughes and Ed Wellbaum comprise the advertising committee and A. M. Gardner and M. T. Whitaker are in charge of exhibits.

The convention committee appointed to date consist of the following members:

General Chairman - R. R. Simonson

Program Committee - F. D. Bode, J. E.

Kilkenny, R. F. Herron, M. R.

Rector, H. V. Church

Program Editor - L. J. Simon

Arrangements - A. T. Lee, Jack Harding,

Jr.

Advertising - J. B. Hudson, A. W.
Hughes, Ed Wellbaum
Sound and Facilities - Lloyd Metzner
Registration - T. E. Folsom
Exhibits - A. M. Gardner, M. T. Whitaker
S.E.G. Chairman, Pacific Section W. L. Matjasic

Program Chairman - T. H. Braun S.E.P.M. Chairman, Pacific Section -W. T. Rockwell

Program Chairman - Orville Bandy
Anyone wishing to give a paper or knowing
some one who should present a paper at the fall
meeting is requested to contact a member of the
program committee at the earliest possible date.

### A.A.P.G. LUNCHEON

Dr. D. Foster Hewett, Staff Geologist of U.S.G.S., spoke on the geologic history and structure of the Mohave Desert region at the regular meeting for August. Over 100 members and guests were present. Of the 12,000 square miles included in the region, about 55 percent of the area is covered by Recent alluvium and 45 percent by older rocks. The areal extent of the latter group may be further subdivided into 10 percent Archean rocks, 5 percent Paleozoic sediments, 15 percent Mesozoic intrusives, and 15 percent Tertiary age material.

The speaker discussed the nature and extent of the six more important orogenies that have effected the Mohave Desert region: 1) middle pre-Cambrian; 2) late pre-Cambrian (post-Pahrump); 3) Pennsylvanian (pre-Bird Spring); 4) Triassic (pre-Moenkopi); 5) late Jurassic (Sierran) and post mid-Cretaceous (Laramide); 6) middle Pliocene.

As one result of the Laramide orogeny, the Mohave block bounded by the San Andreas fault on the southwest and the Garlock fault on the north and northeast began to rise before the earliest Tertiary sediments and volcanic flows (middle Miocene) were deposited. It is estimated that a relative movement of 20,000 occurred. Miocene and lower Pliocene rocks were laid down over much of the Mohave Block, attaining thicknesses that ranged from 4,000 to 8,000 feet. Following their deposition the block was again subjected to tectonic stresses which resulted in the formation of folds and faults of northwest trend. Probably most of the northwest faulting was reverse in character. During this compressive epoch, the block again rose as much as 5,000 feet with respect to the region north of the Garlock fault and probably the region southwest of the San Andreas fault.

During Pleistocene and Recent time, it is inferred, compression has relatively lessened as the western half of the block is now below the surrounding regions; the eastern half of the block seems to have risen, however. Some faulting of normal type since late Pleistocene time is revealed by many faulted alluvial fans and playas.

Field work during the past twenty-five years in the eastern Mohave region shows the presence of extensive plates, of composite character, in the belt of mountains which are east of the Death Valley trough; Furnace Creek bounding on the north and the Old Dad Mountains on the south. (A north-south zone of approximately 125 mile width). These plates are shown in the Black Mountains (Don Curry), the Virgin Springs area (L. F. Noble), the Tecopa quadrangle (D. F. Hewett). As some of the plates rest upon sediments of mid-Tertiary age, the age of the indicated thrust faulting seems to be middle Pliocene. No relation to the Mohave Block is

## EXECUTIVE COMMITTEE, PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

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Dick Faggioli
Lee Diehl
Ida Dobler
Harold Sullwold
D. L. Kirkpatrick
Bob Anderson
Bob Herron
Dick Thorup

Next Deadline September 29, 1952

apparent thus far.

A fault map based upon all published and much unpublished information, as well as upon recent geologic reconnaissance and the study of aerial photographs of the entire region was shown and greatly appreciated by the audience. The meeting was concluded with kodachrome slides showing features of the late Tertiary thrust faults.

### A.A.P.G. FORUM

The Forum meeting of August 18 was a double feature program with H. H. Neel, Tidewater Associated Oil Company and Aden Hughes of Goudkoff and Hughes sharing the bill.

Mr. Neel discussed various types of land slides and pointed out the erroneous interpretations which may arise as a result of the failure to recognize them in the field.

In circular type slides, those which move on a curved surface and usually with a backward rotation, the attitude of the bedding is almost invariably changed. In some cases of repeated movements of the same slide this backward rotation may amount to 30 or 40 degrees.

In bedding-plane-slides, the degree of change from normal attitude depends largely on the location of the bed within the slide. In the main body of a bedding-plane-slide it is very common to find large masses which have moved a considerable distance without appreciable change in attitude. On the other hand, in the toe of a large slide, it is not unusual to find apparently undisturbed blocks 50 to 75 feet in diameter which have been tilted 90 degrees or more from their original position.

Mr. Neel pointed out that landslides often give the impression of faulting by repeating or omitting beds or forming gouge. The geologist must learn to recognize slides in the field so their effects can be avoided as a source of structural information.

Landslides occur in all types of rocks, but some generalizations can be made. Massive claystone and mudstone units tend to move in mud flows, slumps and small slides which often coalesce to form moderate to large-sized areas of multiple slides. Generally these slides are fairly shallow, and reliable outcrops may frequently be found in the deeper gullies and canyons.

Bedded shales and interbedded sands and shales seem to slide in fairly large masses. Reliable attitudes usually can be found at the top of the slide.

Most of the active slides observed by Neel in well-indurated formations are small to medium in size and generally of an avalanche type. Older slides in this type of rock, however, are of tremendous size and may reflect a period of increased uplift and diastrophic movement as compared with the present time.

Mr. Neel concluded his talk with views of landslides in the Ventura Basin.

Mr. Hughes presented a revised stratigraphic column of the Santa Maria Basin, which is shown below, and discussed the changes in stratigraphy from this region southeastward toward Santa Barbara and northwestward toward Santa Cruz. A series of slides illustrating rock types and index foraminifera of California tertiary rocks concluded the program.

GENERALIZED STRATIGRAPHIC SECTION							
SANTA MARIA BASIN							
AGE	FORMATION	STAGE	MEMBERS	THICKNESS		LITHOLOGY & MARKER FOSSILS	
RECEST	ALLUVIUM DURE SAND			0-16001		Yellow Sands & Gravels	
PLRIS- TOCAME	PASO ROBLES			0-5001		Yellow Sands - Wonterey Shale Pebble Conglomerate & Blue Gravels - Mon-marine	
	CAREAGA		Graciosa Cebada	0-500 •	٠.	Coarse - Fine Gray Sands ( <u>Elphidium</u> - <u>Dondraster</u> )	
UPPER PLIOCESE	POTES			0-22001		Olive Brown Siltstone (Bulimina pilohella) (Uvigerima fomeni)	
LOUR PLICENS	SISQUOC		Tinaquai.o	200 J <sub>2</sub> 000 ·	) )	Elue Gray Siltstons (Nontonella - Virgulina) Fins to Med. Silty Sand	
		Del-	Todos Santes			Bl. Gray - Brown Clayabale (Bolivina obliqua)	
		montian	Arenaceous	30 1-2001		Brown Siliceous Flaty Sheles (Arenaceous Forams)	
	MORTENAT		Upper Mohnian	Cherty	190*-310*	<u> </u>	Siliceous Brown Shale & Opeline Chart (Rolivina bushesi)
		Lower Wohnian	Bentonitic Brown	601-1501		Brown Silic. & Limoy Shale w/Cherty Shals Interbeds (Bolimina uvigarinaformia)	
UPPER MIDDLE MICCERE		MONN1 MI	Buff & Brown	801-3001	7	Brown Silio, Line & Chert w/Phos. Shals (Baggina californica)	
		Luislan	Dark Brown	1101-3001		Brown Argillacecus & Phon. Shale (Siphogenerina)	
			Cil Sand	0+1LO*		Oil Sand (Peoten andersoni)	
	Point SAL	Relis- ian	Siltstone & Shell	0-j000,∓		Oil Sand Louelly - Gray Brown Siltstone w/Limestone Lenses (Yalv. graats-Sipho, branneri)	
-		├ <b>-</b> -	Tota	0-2501		Light gray to white tuff	
L. MICCENE	RINCON	SAUCES- IAN	Rincon- Vaquaros Sespe	0~2500 '±		Gray brown silty claystons (Sipho. transversa)	
TO UPPER	Vaqueros	Zomorr-	Lospe 0-26001	0-100'±		Med. Cse., Liney to Frighle sand	
ROCENE	Seape	ien	\ \	0-100°±	1	Red Sands & Shales	
UPPER JUBASSIC	RECEVILLE SERIES			0-2500°±		Dark Gray Sheles & Sandstonesw/Rare Local Sespentine (Aucella ptochti)	
JURASSIC	FRANCISCAL	N		7		Altered Basalt & Serpentine Complex Basement	

Dr. Charles F. Park, Jr., Dean of the School of Mineral Sciences is taking sabbatical leave for the coming year and will do research work on iron and manganese deposits in Cia Acero De Pacifico, Chile. Professor Fred Humphrey will serve as acting Dean in his absence.

Professor Arthur Howard has been appointed a delegate to the 19th International Geologic Congress in Algiers this month. He has also been invited to participate in two exploratory trips along the North African coast and into the Sahara.

The resumption of the publication of the Journal of the Cushman Research Foundation is welcome news to micropaleontologists. Doctor Hans Thalmann has been appointed editor and Doctor Joseph J. Graham assistant editor.

A course in Palynology, the study of fos-sil pollens, will be offered for the first

time this fall quarter.

Doctor Adolph Knopf, emeritus from Yale, will continue to teach advanced physical geology as a visiting professor. Mrs. Knopf, a reknown geologist in her own right, is a research associate.

Professor Konrad Krauskopf has left for Oslo, Norway, where he will devote his sabbat-ical leave to the study of geochemistry.

Doctor Joshua L. Soske joined the faculty during the past year as the first Henry Salvatori professor of geophysics. Doctor Soske was formerly chief geophysicist and president of the Geophysical Engineering Corporation of California with offices in Pasadena.

Professor Ben Page resumed his duties at Stanford the first of the year after a two years absence in Japan where he had been doing mineral resources work with the Natural Resources section of the Army.

The Stanford summer field geology course under the guidance of Professor Robert Compton did five weeks of mapping in the Hunter Liggett Military Reservation and the remainder of the time in the Silver Peak Area of Nevada.

Several members of the faculty spent the summer working and doing research for various oil companies. Doctor Joe Graham was in Elma. Washington with the Phillips Petroleum Company; Doctor Hans Thalmann was with Union and Doctor John Manning with Shell in Oregon and Washington. Doctor Osborne Hutton continued his work with the Atomic Energy Commission.

After 31 years of teaching, two faculty members of the School of Mineral Sciences are retiring this year. They are Frederick G. Tickell, Professor of Petroleum Engineering and Welton J. Crook, Professor of Metallurgical Engineering.

### BERKELEY NEWS

For his 27th time Professor N. L. "Tucky" Taliaferro conducted the summer camp at Cal. He was assisted by Professor Charles Higgins and Don McLaughlin. 39 students mapped the Wilbur Springs quadrangle and the northern part of Morgan Valley and Rumsey quadrangles. The town of Arbuckle was their headquarters for the summer.

Professor Perry Byerly, Chairman, has been granted a Gugenheim fellowship to do work on the East coast and in the West Indies. Professor F. J. Turner will be acting Chairman in his absence.

### CAL TECH NEWS

Dr. Robert P. Sharp, Professor of Geomorphology, has been appointed Chairman of the Division of Geological Sciences at Cal Tech. He succeeds the late Dr. Chester Stock, who died in December, 1950.

Professor Sharp, 40, is a native of Oxnard, California, and an alumnus of Cal Tech. He received the Bachelor of Science degree in 1934 and the M.S. a year later, then continued graduate study at Harvard University and was awarded the Ph.D. in 1938. He has been on the Caltech staff since

His contributions to science have primarily concerned current and ancient geological processes which have operated on the earth to produce the landforms and surface deposits now visible.

He has studied Alaskan glaciers for four summers. This research has provided an understanding of how glaciers flow and also an accurate gauge of the observed warming of the northern climate. Professor Sharp has found, for instance, that the expenditure of water by the Seward-Malaspina system exceeds its income by about 850 billion gallons in a normal year.

His study of small-scale structures in glacial gravels in Illinois has shown that the area must once have been perennially frozen for hundreds of years. He also has investigated the glaciation of western mountain ranges, structure and development of the Basin Ranges in Nevada and the mechanics of landslides and debris flows.

As a student at Cal Tech he was quarterback on the football team, captained the team in his senior year and was a three-year letterman. After three years at Harvard he taught at the University of Illinois and in 1943 was commissioned in the Army Air Forces to serve in its Arctic, Desert and Tropic Information Center. This assignment took him into the Alaskan-Aleutian theater several times for work on Arctic survival problems and the mapping of air routes and facilities. After the war he joined the University of Minnesota faculty and in 1947 came to Cal Tech as Professor of Geomorphology.

Professor Sharp is a Fellow of the Geological Society of America and a member of the American Geophysical Union, British Glaciological Society and the American Association of Petroleum Geologists. He served as President of the Cal Tech alumni Association during the past year.

### U.C.L.A. NEWS

Most of this summer has been very profitably spent in moving the geological department from the very cramped former quarters into the new Geology Building. (5 stories high, with approximately 7 times the space the department formerly

The large mineral and paleontological collections (the results of some 25 years of effort on the part of the faculty) for the first time have been exhumed from storage crates where of necessity they were kept and have now been reclassified and are on display in systematic, usable form.

Likewise the Ralph D. Reed library now has space to shelve its volumes and a full time librarian cares for the collection.

A.A.P.G. members are cordially invited to visit and use the collections and the library.

### NATIONAL NOMINATIONS

The nominating committee of the A.A.P.G. has announced the following candidates for executive offices of the Association for 1953-54. President

John Emery Adams, Standard Oil Co. of Texas, Midland, Texas. Jesse V. Howell, Consulting Geologist, Tulsa, Okla.

Vice-President

Glenn C. Clark, Continental Oil Co., Oklahoma City, Okla. Leslie M. Clark, Pacific Petroleums, Ltd., Calgary, Alberta, Canada.

Secretary-Treasurer

Clarence E. Brehm, Consulting Geologist, Mt. Vernon, Ill. Elliott H. Powers, Southern Production Co., Fort Worth, Texas.

Editor

George V. Cohee, U.S.G.S., Washington, D.C. Armand J. Eardley, Univ. of Utah. Salt Lake City. Utah.

Additional nominations may be made by written petition of fifty or more A.A.P.G. members received at the Association headquarters in Tulsa, Oklahoma before Nov. 15, 1952.

Voting on the nominees will be by mail and the results will be announced early in February, 1953. The officers-elect will take office immediately after the Annual Meeting, to be held in Houston, Texas in March, 1953.

A condensed biographical sketch of the two present presidential nominees follows:

John Emery Adams, was born in Iowa and studied at the Universities of Iowa, Chicago and Wisconsin. His professional experience includes positions with the Roxana Petroleum Co. and since 1931 with the Standard Oil Co. of Texas.

Adams has been active in Association affairs, having served on the Geologic Names & Correlations Committee 1939-42, as a Distinguished Lecturer in 1944, as Consultant to the A.A.P.G. Research Committee 1945-48 and as Vice-President in 1950-51.

He has published numerous papers on Texas and Western American geology. He is a member of the G.S.A., and the S.E.P.M., also the American Geophysical Union and was president of the West Texas Geological Society

during 1940.

Jesse V. Howell, was born in Iowa and studied geology at Penn College and the University of Iowa. He has held positions with the Texas Co., the Gypsy Oil Co., the Marland Oil Co. and since 1929 has been a consulting geologist, active in the Mid-Continent, the Illinois Basin and Canada.

Howell has been a member of the A.A.P.G. for 35 years and has served on the business. publication & medal award committees and was secretary-treasurer of the Association in 1947 & 1948. He was president of the Tulsa Geological Society in 1944-45 and is a member of the G.S.A. and the American Geological Society and has published numerous papers in the Bulletin.

### S.E.G. LUNCHEON

Dr. John P. Buwalda, Professor of Geology at Cal-Tech, gave a most timely and informative discussion of the earthquake that occurred as a result of movement along White Wolf fault on the morning of July 21st.

The quake was the strongest recorded in Calfornia since 1906 and had a magnitude, i.e., energy output, of 7.5 on the Richter scale.

The Richter scale is based on the logarithm of the amplitude of the largest horizontal trace made by a seismograph of standard mechanical properties 100 km. from the epicenter.

The epicenter of the earthquake was along the southwest end of White Wolf fault near Wheeler Ridge. Aftershocks, however, are taking place farther northeast from Bear Mountain nearly to Kernville.

Several odd features were pointed out by Dr. Buwalda. For example, neither the destruction nor surface phenomena were commensurate with the energy output. Furthermore, White Wolf fault has few indications of being an active fault such as sag ponds and offset stream drainage.

Field parties from Cal-Tech have made an intensive study of the area since the movement took place. They have found many fractures and breaks from a few feet to a mile or so in length, but not a continuous trace. The breaks are at various angles and show various directions of displacement. Many lines of rupture are made up of a great many open en echelon fractures that indicate a relative left lateral movement. Some of the lines of rupture cross ridges and valleys in a nearly straight line; others more nearly follow contours. At best they are extremely inconsistent in their behavior.

Dr. Buwalda believes the surface phenomena are not surface traces of a fault but represent a zone of fractures that resulted from shaking at the surface. In other words, earth mass movement not fault block movement took place.

Dr. Buwalda concluded his talk with slides showing earthquake damage and views of the zone of rupture along White Wolf fault.

### S.E.P.M. NEWS

The Pacific Section of the S.E.P.M. is featuring a technical session for stratigraphers and paleontologists at the annual meeting on Oct. 30, 1952. A morning session will be held in the Boston room of the Hotel Statler. The program is being arranged by Orville Bandy of U.S.C.

The annual dinner meeting is scheduled for the evening of Oct. 30. Jim Cowell of Shell is arranging a featured talk which should be of wide interest.

### CONVENTION RESERVATIONS

It is now in order for members of the Pacific Section to request reservations for rooms in the Hotel Statler for the forthcoming Pacific Section Convention October 30, 31. Requests should be addressed to Mr. T. M. O'Hara, Front Office Manager, Hotel Statler, 930 Wilshire, Los Angeles 17, Calif.

Bob Herron resigned his position with the Texas Co. as District Geologist for the South Coastal District. He has joined the MJM & M Oil Co. as District Geologist for the L.A. - Ventura - Santa Maria Basins. He can be found at 426 Foothill Dr., Fillmore.

Rex Grivetti, geologist, with the Texas Co. in Bakersfield has been transferred to Santa Paula as Acting District Geologist for the South Coastal District.

One of the geologists in the Ventura area has a rattlesnake cleaned and frozen in his freezer and is going to serve it at a dinner party in the near future -- WHO ARE GOING TO BE THE LUCKY DINERS ??? and WHEN ???

Amerada does not have a new geologist in Ventura -- its just Bob Paschal with a "Groucho Marx" mustache.

Jim Gale, Texas Company scout, has been transferred from Los Angeles to Sacramento.

One small consolation for telephone operators is that since Max Payne has left the Natural Gas Corp. of California they no longer have to stifle laughter on hearing, "This is Payne with Natural Gas."

We're sure that a number of people have inquired as to whether Standard's Herschel Driver took an extra drive-shaft for his automobile on the present vacation to the north country. We recall he had trouble replacing one stolen on last year's trip.

William W. Rand, geologist for Shell from 1927 through 1946 and for Union Oil Company from 1947 through May 1952, has resigned in order to engage in the business of obtaining submarine oriented cores, under the trade name of SUBMAREX. Headquarters are in Santa Barbara, P.O.Box 1135.

Ida Dobler of Standard had quite a write-up in the Times and Hollywood Citizen following her election in July to presidency of the junior membership of the Women's University Club. Congratulations, Ida, we know you'll do a wonderful lob.

Tom Baldwin is in charge of the geologic and engineering work of the Monterey Oil Co. at their new Statler Center Building offices.

Wayne Marrs, a recent graduate of U.C.L.A., has joined Continental's staff in Bakersfield.

Phil and Arline Patten, Continental in Bakersfield, have a new son, Thomas Phillip, 7 lbs. 5 oz.

Bob Bennett of Western Gulf in Bakersfield is recovering from a mild case of polio.

Lee Diehl, Shell in Bakersfield and the P.P.G.'s valuable bibliography compiler, is recuperating from a recent knee operation.

Our sympathies have been with the Texas Co's Jim Dorrance as his son Mike was recently seriously injured while diving along the shore of one of the Hawaiian Islands. Jim flew to visit him in July. We are happy to hear that Mike will soon leave the hospital and return to the mainland.

## ANDY CLINE by sullwold



Bill Adent, formerly geologist with Bankline in Los Angeles and Midland, Texas, has joined Ross Cabeen's staff in the latter city.

Gene Vallat, formerly with Ohio in Bakersfield and director of exploration for Ohio in Canada, has accepted the position of General Manager of the Triad Oil Co., Ltd. of Canada.

Iola and Al Hopkins, Richfield paleontologist in Bakersfield announced the arrival of their third child, a new son, Phillip Malcom, 7 lb. 14 oz. on July 30.

Don Six, The Texas Co. in Taft, and Ruth De Kemper were married July 26 in Pasadena. Don reportedly met his spouse while working in the Walnut Creek and Livermore Valley areas.

The mark of a true scientist: during the recent early-morning big tremor, the first reaction of U.C.L.A.'s John Crowell upon awakening to find nothing swinging to indicate direction of wave motion, was to dash to the water closet (architect's term) to observe the direction of rippling effects. How many of us would think of

Union's George and B. J. Feister very proudly announce the arrival on August 18 of their 6 lb. 7 oz. daughter Sherry Ann.

Galen Sturgeon of Shell is house hunting in the Los Angeles area. Galen has been district geologist in Grand Junction Colorado, but is now Rocky Mountain area geologist with headquarters in Los Angeles.

Sunray's Bob Hindle recently made the journey down the aisle with the former Marilyn Carson. A honeymoon to Alaska followed.

Gordon Dalton, a Pomona graduate, has recently joined the Richfield geological staff in Bakersfield.

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· Pacific Coast

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### **CALENDAR**

Sept. 4, 1952; Thurs., 12:00 noon, A.A.P.G.,
Pacific Section Luncheon, Rodger Young
Auditorium, Los Angeles: "Microwave Radio
Transmission," lecture and demonstration illustrating radio and television transmission
and radar by the Pacific Telephone and Telegraph Co.

Sept. 4, 1952; Thurs., 6:30 p.m., CNGA, Dinner Meeting, Rio Hondo Country Club, Downey: William A. Smith, Principal Geologist of Petroleum Division of the Long Beach Harbor Dept. "Wilmington Subsidence-Geologic Aspects and Related Subsurface Problems." Also pictures of the earthquake damage at the Paloma Cycling Plant.

Sept. 11, 1952; Thurs., 12:00 noon, SEG Luncheon, Rodger Young Auditorium, Los Angeles: Several short talks on "Recent Developments in Offshore Exploration." Speakers to be announced.

Sept. 15, 1952; Mon., 7:00 p.m., A.A.P.G., Pacific Section Forum, General Petroleum Auditorium, Los Angeles: W. H. Geis, Consultant, "Taxation and the Petroleum Industry." W. E. Jessup, Attorney, "International Relations of the United States as They Affect Geologists."

Sept. 16, 1952; Tues., 8:00 p.m., API, Los Angeles
Basin Chapter, Shell Recreation Hall, Long
Beach: Shell Oil Co. representative "Use of Air
as a Drilling Fluid." Also a motion picture.

AIME, Pacific Petroleum Chapter. Date, place program to be announced by mailed notices.

AIME, Junior Petroleum Group Dinner Meeting.

Date and place to be announced. Norris Johnston of Petroleum Technologists, Inc., "Clay Technology and Petroleum Production." Contact C. K. Ferguson, OXford 7-1721 for reservations.



Mr. Fred R. Neuman 381 E. 4th St. Chico California

## PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 6

October 1952

No. 10

### ASSOCIATION ACTIVITIES

### S.E.G. LUNCHEON

The meeting at Rodger Young Auditorium on September 11 was a symposium on recent developments in offshore exploration.

Mr. H. Wayne Hoylman of the firm of Hoylman-Morris, Consultants, pointed out that the first phase of a systematic geophysical exploration program of an offshore region should be an aeromagnetic survey. This type of survey was shown to be rapid, inexpensive and precise. Geological information to be derived from aeromagnetic data consists of an estimation of thickness of sediments, delineation of regionally high areas, and location of faults including direction of throw.

A survey of the Santa Barbara Basin was used to illustrate how these various kinds of geologic information can be inferred from aeromagnetic data.

Mr. Carl H. Savit and Mr. David Sheffet of Western Geophysical Company discussed new instruments and equipment used for the first time on the Pacific Coast by Western in its current offshore operations.

Mr. Savit described a new jetting spoon which was developed by Western for the Pacific Coast work and that is designed to plant a forty pound charge of black powder fifteen feet below the ocean bottom. The spoon is designed so that the powder cans are completely enclosed and protected during the jetting operation. The water course of the jetting spoon is an essentially unbroken circular cylinder. The construction and operation of this spoon were illustrated by means of an eight foot colored drawing.

Mr. Sheffet explained the construction and operation of the seismometers used in the present offshore operation. By disassembling and demounting an actual seismometer, Mr. Sheffet was able to show how the gimbal suspension of the seismometer operated. The gimbal mounting of this seismometer aids in keeping the instrument horizontal at all times while a shot is being taken. In addition to the gimbal mounting feature, the seismometers are enclosed in streamlined hardwood cases which have proven highly successful in preventing fouling by kelp.

Mr. Maynard Harding of United Geophysical Company reported on the experiments which resulted in the use of black powder as the explosive for the California offshore seismic exploration. The explosion of a dynamite charge is characterized by a very sharp rise in pressure followed in many cases by a negative pressure pulse. This negative pressure is limited by cavitation to one atmosphere of pressure. It is believed that the damage to fish is due partly to this rapid pressure pulse and also to the negative pressure which is responsible for the rupture of internal organs. Black powder

does not detonate but burns rapidly at a rate varying from 600 feet to 1200 feet per second. The pressure rise is much slower and the peak pressure is much less than with dynamite. No occasions have been noted where black powder explosions gave rise to negative pressure pulse, probably due to the much lower peak pressures produced by black powder. Experiments on shore showed that reflections could be obtained using black powder and the successful use of black powder offshore indicates that the objection of the Fish and Game Dept. and of sport and commercial fishermen is no longer a factor in seismic exploration.

Mr. Ted Howes of United Geophysical Company substituted for Bill Rand of Submarex in discussing offshore coring. Punch cores 1-1/2 inches in diameter and averaging 6 to 10 inches in length have been successfully taken off the southern California coast in water as deep as 400 feet and from depths as great as 400 feet below the ocean floor. The coring device is jetted through the overburden until it reaches a solid formation where the cores are taken with a dropweight core barrel. The cores are oriented as to magnetic North and as to inclination from the vertical by using an Eastman camera. Core recovery averages 90 per cent. The general opinion indicates that the cores obtained so far have been very valuable in identifying the near surface formations.

### A.A.P.G. LUNCHEON

Mr. C. Corbin Devalon, Lecture-Demonstrator for The Pacific Telephone and Telegraph Company, was guest speaker at the regular luncheon on September 4th.

Mr. Devalon told of the operation of microwave radio relay which is used by the Bell System for the transmission of long distance telephone calls and television programs on its \$40 million transcontinental radio relay system.

Microwave signals are sent on a radio beam of super high frequency that reaches its destination via relay stations spaced along the route. Similar to light waves, microwaves can be reflected — but unlike light waves, at the super high frequencies they are not troubled by rain, snow, fog, static and most man-made interference. Many other scientific facts about microwaves were demonstrated and discussed in simplified terms by the speaker.

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Bob Maynard Ben Lupton George Feister

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Bob Kelly Dick Faggioli Lee Diehl Tds Dobler Harold Sullwold D. L. Kirkpatrick Bob Anderson Bob Herron Dick Thorup

Next deadline November 3, 1952

### BAKERSFIELD MEETING

A large crowd came to hear Bill Pemberton tell about his trip through Africa, and to see the beautiful color slides of his trip. Bill and his wife flew to Africa, and then by car and plane they made a complete circle of the African Continent.

There were pictures of all the animals found in Africa. Many of the shots were close-ups that were taken from the car. They visited all the different tribes, and by paying a stiff bonus the natives consented to do their tribal dances for them. They had no trouble getting clean and comfortable accommodations every night, and the hotels were large and luxurious. Bill spent one night in the bed where once Queen Elizabeth slept(but she wasn't there). For some reason or other, every once in a while a beautiful blond came on the screen in scanty pose. Bill couldn't seem to explain how those pictures got in with his slides.

A few slides showed the geology of Africa, and Bill also explained that Africa was very much in need of the discovery of oil. The people there have no fuel, especially Ethiopia where they use dried cow dung as their main source of fuel.

Everyone attending this meeting agreed that it was one of the most interesting meetings of the year. Bill Pemberton certainly has the knack of telling a good story.

### NOTICE

The P.P.G. departs from its established policy of not publishing "situation wanted" or "opportunities existing" notices in view of the nature of the following announcement:

Wanted: By the United States of America Mutual Security Agency, Mission to China ---Experienced Petroleum Geologist for field work in rugged country, in an area of extreme heat and humidity --Island of Taiwan. Interested geologists should write: Mr. Robert Y. Grant, Special Assistant to Chief of Mission, Mutual Security Agency, China Mission, c/o APO 63, Postmaster, San Francisco, California.

### RIFT CLUB FIELD TRIP

Dr. John P. Buwalda of Cal Tech will lead a Rift Club Field Trip Sunday, October 26th, through the area of recent faulting in the Arvin-Tehachapi district. The meeting place will be the Safeway Stores parking lot in Arvin and the time 9:30 AM Sunday morning.

A secretary will be selected at this time to replace Kenneth Garner, who very suddenly passed away, and whose long interest in the Rift Club will be very much missed.

Arrangements for the Field Trip are in charge of Mr. Robert Peters, 685 North Coast Blvd., Laguna Beach, California. All members, friends, and others interested in geology are cordially invited to attend.

### A.P.I. MEETING

Mr. H. E. Radford of Shell Oil Company was guest speaker at an A.P.I. meeting in Long Beach on September 16th. In his talk entitled "Drilling with air as a Circulating Medium", Mr. Radford described air drilling operations conducted by Shell in the South Mountain Field which commenced in February, 1952. In this field the upper 1000-1200 feet consist of highly fractured shales and volcanic materials which comprise a severe lost-circulation zone. Due to very limited supplies of water the zone in question has previously been drilled by cable tool which is slow and expensive, or by conventional rotary with attendant high mud, cementing and rig time costs.

As an alternative, use of air as a circulating medium was tried and costs and drilling time were reduced effectively. Nine large 110 psi air compressors producing 4045 cu.ft. of air per minute were used to circulate out the cuttings. Air velocities achieved in the annulus varied from 60 to 90 feet per second in 12-1/4 in. to 15 in, hole sizes. A total of 11 holes were drilled to depths ranging from 725 ft. to 1056 ft. after which surface casing was set and the wells completed with normal mud circulation. On one well sloughing conditions stopped the air drilling at a depth of 484 ft.

Limitations of the air drilling method were found to be that a minimum of 60-70 ft. per second velocity in the annulus was required, and that in moist or water bearing formation, progress was stopped by balling-up of the bit and drill collars, and by plastering of the cuttings against the walls. The depth to which most of the wells were carried with air circulation was determined by the depth of the first water bearing formation and in some cases a greater depth would have been desirable.

### U. S. C. NEWS

Dr. W. H. Easton, Professor of Geology, is taking sabbatical leave for the coming year and will be working for the U.S. Geological Survey in the National Museum, Washington, D.C.

Dr. Kenneth O. Emery returned on September 5 from a summer in Japan and Guam working with the U. S. Geological Survey. While in the field he as engaged in research on submarine geology of Guam. Working with Dr. Emery in Guam was Stuart Kessling, a graduate student.

The Geology Summer Field Camp was held in Ely. Nevada under the direction of Dr. Orville L. Bandy. The students mapped parts of the Illipah quadrangle. Robert M. Weidman, graduate student at the University of California, assisted Dr. Bandy with the field camp.

## CONVENTION PROGRAM

The twenty-ninth annual meeting of the Pacific Section of the American Association of Petroleum Geologists, Society of Exploration Geophysicists, and the Society of Economic Paleontologists and Mineralogists will be held jointly at the Statler Hotel, Los Angeles, California, on Thursday and Friday, October 30th and 31st, 1952.

> GENERAL CHAIRMAN, CONVENTION Russell R. Simonson

### REGISTRATION:

### Registration for the three societies will begin at 8:30 A.M. Thursday in the Lobby of the Statler Hotel.

### HOTEL RESERVATIONS:

Hotel reservations should be made directly with Mr. T. M. O'Hara, Front Office Manager, Hotel Statler, 930 Wilshire Blvd., Los Angeles, 17, California.

### TENTATIVE TECHNICAL PROGRAM

AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS							
Golden	State Room	Statler Hotel	<u>Golden</u>	State Room	Statler Hotel		
	THURSDAY MORNING			FRIDAY MORNING	1		
9:30	"Address of Welcome" Homer J. Steiny, President tion A.A.P.G., T.W.A. 011	t, Pacific Sec- Co.	9:00	"Geology of the Devils Calif." C. F. Green, Consulting	· <del></del>		
9:50	"Recent California Earthqua John P. Buwalda, Californ Technology	akes" - " <u>Geology</u> " la Institute of	9:20	"Markley Gorge, Sacrame Don M. Davis, Consulti			
10:10	"Recent California Earthque logy" Hugo P. Benioff, Californ Technology		9:40	"West Edison Oil Field, Harold H. Sullwold, Jr gist INTERMISSION	Kern Co,, California" ,, Consulting Geolo-		
10:30	"Nomination of Officers"		10:20	"Productive Possibiliti	es of the Butano		
10:50	"Evidence of Extensive Lat the Bakersfield Area, Ker	n Co., California"	10.20	Sandstone, Santa Cruz T. A. Baldwin, Montere	County, California"		
11:10	A. H. Warne, Richfield Oil "Lateral Faults of Souther Mason L. Hill, Richfield	Corp. n California"	10:40	"Northwest Extension of Oil Field, Santa Barba B. C. Lupton & W.Z.Elm	West Cat Canyon ara Co., California" nore, General Pet. Corp.		
11:30	"Earthquake Damage to Oil Co., Calif." R. L. Johnson, Western Gu			FRIDAY AFTERNOO	<u> </u>		
	THURSDAY AFTERNOON		0.00	Joint Session	L		
2:00	"Thrust Faults in the Vento	ura Basin"	2:00	"Oil Exploration" Ira H. Cram, Continent	al Oil Co.		
2:20	"Geology of the Oxnard Pla County, California"		3:00	"A New Continuous Recor H. E. Hagen, Humble Oi Houston, Texas			
	Leo H. Moir, Jr., Oceanic	011 Co.	3:20	"Business Meeting			
2:40	"Peculiarities of the Auri lation in the San Ardo Fi County, California" John H. Fackler, Monterey	eld, Monterey	3:40	"The Geology of Shelder Texas" Thomas D. Barber, Stan Corpus Christi, Texas			
3:20	INTERMISSION "Castaic Hills Oil Field,	Ing Angeles Co	4:00	"Geophysical Comparison Co., Calif."	s at Dinuba, Tulare		
J.20	California." D. P. Ford, Continental O			M. C. Born, Amerada Pe	troleum Corp.		
3 <b>:4</b> 0	"Eocene of the Upper Sespe Co., Calif." W. R. Merrill, Standard C						

"The Influence of Submarine Canyons on the

Intrusion of Ocean Water into Fresh Water

John F. Mann, Jr., USC Dept of Geology

### SOCIETY OF EXPLORATION GEOPHYSICISTS

Statler Hotel

### Boston Room

Aquifers"

9:30

### Statler Hotel

## FRIDAY MORNING

New York Room

9:00 "Safety is Important to Geophysics" (This paper includes a 15-minute film presentation) Bart W. Sorge, United Geophysical Company

## THURSDAY MORNING

9:35 "Curved-Ray Delta-T Analysis" John T. Brustad, Western Geophysical Co.

9:55 "Stratigraphy and Paleontology of the Type Topanga" Takeo Susuki, U.C.L.A.

"The Use of Aerial Shooting for Seismic 10:00 Exploration" J.J.Jakosky, International Geophysical Co.

"North Atlantic Core Foraminifera Collect-10:20 ed by the Swedish Deep Sea Expedition" Fred B. Phleger, Frances L. Parker, and Jean S. Peirson, Scripps Institute of

10:25 "Notes on the Use of Multiple Geophones" Leonard V. Lombardi, Stanford Research Institute.

Oceanography, La Jolla, Calif. 10:45 "Further Evidence of Wind Blown Rocks on Playas" Thomas Clements, U.S.C., Department of

10:45 "A Model for Lamb's Problem in the Presence of Internal Viscosity" Margery Newlands & Leon Knopoff, U.C.L.A. Institute of Geophysics

11:10 "The Stratigraphic Distribution of the Foraminifera of the Type Locality of the Luisian Stage" Harold G. Billman, Union Oil Co., and Alfred Hopkins, Richfield Oil Corp.

11:05 "Results of Seismic Model Studies" E. T. Howes, L. H. Tejada-Flores, L. Randolph, United Geophysical Co.

11:35 "Stratigraphy of Eastern Venezuela" M. W. Zaikowsky, The Texas Co.

11:30 "A Problem in Engineering Geophysics" The "Blind Zone" problem in retraction work. Joshua L. Soske, Professor of Geophysics, Stanford University.

COLLEGE LUNCHEONS

Unofficial college reunion luncheons are be-

planning to attend the S.E.G. Luncheon on

Friday noon. These luncheons will be held

in the Statler Hotel and in other neighbor-

for these college luncheons will be on sale during registration. It is to be remarked that the college luncheons are not part of

the General Program. The S.E.G. Luncheon is

the main and only programmed event on Friday

ANNUAL DINNER DANCE

ing restuarants. Where interest is expressed

by a sufficient number of "write-ins" a chairman will be appointed to organize a luncheon get-together for the college named. Tickets

ing arranged for the convenience of those not

### LUNCHEONS & DINNERS

### A. A. P. G. Luncheon

### Thursday Noon

Mr. J. Morgan Davis, National A.A.P.G. President will discuss the affairs of the Society at the luncheon to be held at 12:15 P.M. in the Los Angeles Room. Tickets \$3.00 will be on sale during registration.

### S. E. P. M. ANNUAL DINNER AND EVENING SESSION

### Los Angeles Room

Los Angeles Room

### Thursday Evening

The Annual S.E.P.M. Dinner and Evening Session will be held in the Los Angeles Room, Hotel Statler, at 7:00 P.M., Thursday. Immediately following dinner a paper will be given, "Stratigraphy of the Cuyama Valley", by Stanley Carlson, Richfield Oil Corp. Tickets \$4.50 (including tax and gratuities) will be on sale Thursday. Nomination and election of officers will be held during the evening meeting.

### Pacific Ballroom

noon.

### Friday Evening

The Annual Semi-Formal Dinner Dance will be held in the Pacific Ballroom of the Statler Hotel, Friday evening. Dinner will be served at 8:30 P.M. and dancing from 9:30 P.M. to 1:30 A.M. Music will be furnished by Manny Harmon's Orchestra. All persons attending the convention are cordially invited. Reservations for parties, preferably of 10 persons, should be made on a single card and responsibility for such reservations should be assumed by one individual. Make checks payable to A.A.P.G. Pacific Section at \$15.00 per couple and send with your reservation card listing the names of those making up the party to: A. T. Lee, Sunray Oil Corporation, 714 West Olympic Blvd, Los Angeles, California. Reservations are requested not later than Wednesday, October 15, 1952, to permit mailing tickets to persons making reservations.

### S. E. G. LUNCHEON

### Los Angeles Room

### Friday Noon

The Annual Luncheon of the S.E.G. will be held in the Los Angeles Room Hotel Statler, at 12:15 P.M., Friday. A paper will be given. "Professional Responsibility" by Curtis H. Johnson, National President, S.E.G. Tickets \$3.00 will be on sale during the convention.

### PERSONAL ITEMS

Our sincere thoughts have been with Sam and Irene Stewart of Richfield in Canada. Irene is in the hospital at Edmonton engagad in a tough battle with Polio. We are sure, to use Sam's expression, that she is "fighting like a tiger".

British American's Jack Knight has been spending his time in various areas of the Rockies. Rumor has it that he may be heading for Denver soon.

Guy Hannagan, U.C.L.A. grad and formerly with Peters Well Logging, has been working for Wilshire in the Rocky Mountain area, largely in Wyoming.

Jim O'Neil, formerly with Intex in Santa Paula, is now with Miller and York in Bakersfield.

The former Miss Elsie McNab made the long trip down from Winnepeg to become Mrs. Mandy Touring (Humble) in Los Angeles, Sept. 11. Congratulations to you both.

Dr. Frank S. Hudson, San Francisco consultant, and Mrs. Hudson have just returned from a six months' vacation trip through Europe. Most of their time was spent in Spain, Italy and Austria, where Frank couldn't resist a few days' geologic investigation of the Tyrolean Alps. In their travels they met H. K. (Army) Armstrong, well known Los Angeles consultant, who was vacationing in Italy with his family. They also enjoyed a pleasant reunion with the H. J. Buddenhagens, now assigned to the Royal Dutch Shell in The Hague.

Elmo Adams, San Francisco consultant, has recently returned from a two weeks' business trip to Utah and Montana which included an excellent field trip in the Wasatch Mountains sponsored by the Utah Geological Society. Elmo said that the only other Californians on the trip were Martin van Couvering, consultant, and Floyd Johnson, Honolulu Oil geologist.

Charles F. Guion, Humble scout, has been transferred from Chico to Sacramento.

Joseph A. Dunwoody has joined the Pacific Western Geological Dept. in Bakersfield. He is a grad of U.S.C. and has worked for Bartholomae Corp. in Fullerton and the State Division of Oil and Gas in Long Beach.

Mac and Edith McCombs, of Seaboard in Bakersfield, greeted their fourth child September 16th. After three boys they now have their girl, Cheryl Anne. Congratulations!

It seems that congratulations on new baby daughters really were the order for September among Bakersfield geological families:

Jerry and Mark Ganopole, of Seaboard, now have Lissa Caryl, born Sept. 12th.

Orrin and Donna Wangsness, of Western Gulf, were joined by Kerstan Evan, born Sept. 5th.

Dick and Dorothy Hovey, of Standard, greeted Valerie, born Sept. 20th.

R. A. (Andy) Marin has resigned from Western Gulf in Bakersfield to go into Consulting. His office is at his home, 330 Eighth Street, Bakersfield, Phone: 3-6406.

Jack Beach, of Oceanic in Bakersfield, has recently returned from a two-months trip through Europe. Although he had a wonderful trip, he was disappointed because he was unable to attend the International Geological Congress in Algiers, due to lack of transportation.

Max Capen has left Seaboard in Canada to become Manager of Exploration with Kroy Oils, Ltd., in Calgary.

Chuck Orcutt is now handling core samples for Richfield's Long Beach laboratory. "Mac" MacIlvain has moved into the lab.

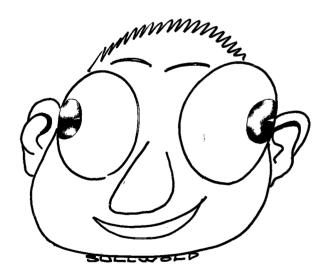
Bob Hoffman, a recent Stanford graduate, has joined the Tidewater geological staff in Bakersfield.

Ernie Young, TWA, Bakersfield, has been spending the summer well-sitting in Canada.

Dick Saunders has left Continental in Bakersfield to join British American in Denver.

Bert and Faye Marier are the proud parents of a 9# 4 oz. baby boy, Brian Douglass, born on September 3. Bert is a geologist for Tide Water Associated Oil Company in San Francisco.

## YEAH, I CAN SEE STEREOSCOPICALLY.... WHY?



Andy Anderson has resigned as Dist. Geologist of Amerada, and is now working for Continental in Bakersfield.

After threatening for over a month, the Army finally cut orders assigning Humble's Bakersfield Scout Nick Greene to the A.A.F. on Oct. 11.

W. T. (Harry) Hughes, formerly with Texas Co. in the North Coastal Dist., has been transferred to Bakersfield.

Roy A. Miley has been transferred to the Bakersfield T.T. Co. office after working in South America for the past fifteen years.

## BIBLIOGRAPHY OF RECENT PUBLICATIONS

### SCIENTIFIC PUBLICATIONS - JOURNALS AND BULLETINS

California Department of Natural Resources.

Division of Mines. Mineral Information Service September 1, 1952

\* "Arvin - Tehachapi Earthquake"

## Bulletin of the Geological Society of America - September, 1952

"Correlation of the Jurassic Formations of North America, exclusive of Canada." Ralph W. Imlay. pp. 953 - 992.

"Dynamic Basis of Geomorphology." Arthur N. Strahler. pp. 923 - 938

### TRADE JOURNALS AND MISCELLANEOUS MAGAZINES

### World Oil, September, 1952

"Why Does the Geologist ----." pp. 96 -- 98

"Unitization Offers Economic Advantages."
L. E. Brock and Bruce A. Landes, Jr. pp. 206 - 220

"Geologists to Meet in Algiers." Dr. J.Brian Eby. pp. 287 - 288

### World Petroleum. September, 1952

"A Seismologists View of Western Canada." F.B.Leedy. p. 90

### The Petroleum Engineer, September, 1952

"The Powder River Basin - Area of Promise."
W. E. West, Jr. A--41

\*Pacific Coast

PACIFIC PETROLEUM GEOLOGIST
PACIFIC SECTION, A.A.P.G.
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Volume 6 No. 10

### CALENDAR

- Oct. 7, 1952, Tues., 7:00 p.m., AIME, Dinner Meeting, Saddle and Sirloin, Bakersfield: Panel discussion on well completion methods. Engineers from several companies will participate in the discussions.
- Oct. 9, 1952, Thurs., 12:00 noon, SEG, Luncheon, Rodger Young Auditorium, Los Angeles: Dr. William L. Morris, Consultant, "Radioactivity and its Applications in Geophysics and Geology".
- Oct. 14, 1952, Tues., 7:00 p.m., AAPG, San Joaquin Valley Geological Society, Dinner Meeting, El Tejon Hotel, Bakersfield: Dr. V. L. Vanderhoof, Intex Oil Co., "Earthquakes of California".
- Oct. 21, 1952, Tues., 8:00 p.m. API, Los Angeles Basin Chapter, Shell Recreation Hall, Long Beach: L. S. Kelsey, District Superintendent of Union Oil Company at Santa Fe Springs, "Application and Operation of Hydraulic Bottom Hole Free Pumps".
- Oct. 21, 1952, Tues., 8:00 p.m., API, San Joaquin Valley Chapter, Palm Room at Bakersfield Inn, Bakersfield: Speaker to be announced.
- Oct. 23-24, 1952, Thurs. Fri., AIME, Annual Fall Meeting, Statler Hotel, Los Angeles.
- Oct. 23, 1952, Thurs., 12:00 noon, AIME, Pacific Petroleum Chapter Luncheon, Statler Hotel, Los Angeles.
- Oct. 24, 1952, Fri., 12:00 noon, AIME Luncheon, all sections, Statler Hotel. Los Angeles.
- Oct. 24, 1952, Fri., 8:00 p.m., AIME Informal Dinner-Dance Supreme, Sponsored by the Pacific Petroleum Chapter, Statler Hotel Ballroom, Los Angeles.
- Oct. 26, 1952, Sun., 9:30 a.m., Rift Club Field Trip, meet at Safeway parking lot in Arvin.
- Oct. 30-31,1952, Thurs. Fri., AAPG SEG SEPM, Annual Fall Meeting, Statler Hotel, Los Angeles.



Mr. Fred R. Neuman 381 E. 4th St. Chico California

## PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

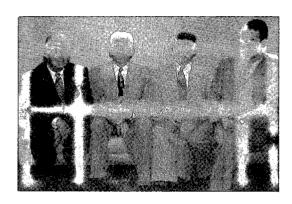
Vol 6

November 1952

No. 11

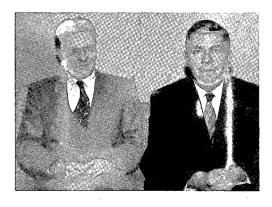
### ASSOCIATION ACTIVITIES

A.A.P.G. OFFICERS



From left to right the newly elected officers of the Pacific Section "beam" at the membership Vice President, Rufus M. Smith, Continental Oil Co., President, Russell R. Simonson, Ohio Oil Co., Secretary, Robert G. Maynard, Sunray Oil Corp., Treasurer, Tom E. Folsom, Honolulu Oil Corp.

S.E.P.M. -- S.E.G.



Orville Bandy, University of Southern California, the newly elected President of the  $S_*E_*P_*M_*$  and Bob Galeski, Honolulu Oil Corp, the newly elected President of the  $S_*E_*G_*$  pose obligingly for the camera.

Orville Bandy will be assisted by Dana Braislin, Union Oil Co, who was elected Secretary-Treasurer of the Pacific Section S.E.P.M.

Bob Galeski will be helped in the Southern District by Carl Savit, Western Geophysical Co, Who was elected Vice President and Bill Cortright, TWA, who was elected Vice President for the Northern District. Bob Wells of Richfield has been elected Secretary-Treasurer.

### SACRAMENTO GEOLOGICAL SOCIETY

Dr. Robert D. Ohrenschall, Shell Oil Company geologist, on October 9, reviewed before the Sacramento Geological Society a very interesting paper entitled "A Summary of the Geology and Exploration for Gas in the Sacramento Valley." This paper was written and originally read by Wm. E. McKittrick at the 1947 AAPG convention in Los Angeles. With the revived interest in the search for natural gas reserves everywhere, a review of this subject was particularly timely. Dr. Ohrenschall brought the paper up to date with respect to discoveries subsequent to 1947.

Geologically the southern boundary of the Sacramento Valley is the northern edge of the subsurface Cretaceous "ridge" that extends across the valley from just south of Stockton towards Tracy. The remaining boundaries are formed by the foothills of the Sierras and the Coast ranges. This great sedimentary basin is divided into a northern and southern part on the basis of the development and productiveness of the Eocene and Cretaceous sediments. This northern-southern division is somewhat arbitrarily made through T. 10 N. on an east-west line through the town of Woodland.

The southern part, or area of the main Eocene sedimentation has an average Eocene section of approximately 3000° containing about 35 per cent permeable sand. The maximum thickness of approximately 7000° occurs in outcrop section on the north side of Mt. Diablo. Four stages of Eocene are represented over most of the area.

Nineteen of the 29 gas fields in the Sacramento Valley are in the southern area. Of these, 16 fields produce from Eocene sands, while the remainder obtain gas from the Cretaceous.

In the northern area, the Eocene has a maximum thickness of about 1300' with an average thickness of about 650'. Locally it may contain up to 50 per cent permeable sand. Probably only two stages of the Eocene are represented.

Production is predominantly from the Paleocene or Cretaceous with 8 of the 10 fields producing from sands of this age. The Corning field produces from the Pliocene and Durham from the Eocene.

A series of correlation sections of typical electrical logs and structure sections through most of the gas fields were displayed and discussed in some detail.

Most of the gas fields in the southern or Eccene area are structural domes with closure up to approximately 250 feet. Some of the domes are modified by faults which influence the closure and production in various blocks.

The Cretaceous fields are anticlinal with closure due mainly to lensing sands or overlap.

The Pliocene Corning field is anticlinal but the closure may be due to faulting, or lensing.

## EXECUTIVE COMMITTEE, PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Russell R. Simonson Rufus M. Smith Robert G. Maynard Tom E. Folsom Homer J. Steiny

President Vice-President Secretary Treasurer Past-President

### PACIFIC PETROLEUM GEOLOGIST

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Editor: Assistant Editors:

Bob Maynard Ben Lupton George Feister

Department Editors: Activities: Personal Items: Selected Bibliography: Calendar: Cartoonist: San Joaquin Representative: San Francisco Representative: Coast Representative:

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### Next deadline Dec. 1, 1952

The structure at Corning, Marysville Buttes, Dunnigan Ridge, Fairfield Knolls, Potrero Hills, Kirby Hill and Rio Vista, is exposed in the outcrops or expressed topographically in varying degrees. The structural high at Rio Vista is southeast of the topographic high. The other fields have no surface expression.

The most extensive exploration which has been mainly by geophysical methods has been in the southern portion, where the consistent gas zones in the Eocene are known to be very prolific. Recent activity has included the northern area for its share of attention.

### S.E.G. DISTINGUISHED LECTURER

The Society of Exploration Geophysicists is sponsoring a trip to Southern California by Professor J. Tuzo Wilson, Professor of Geophysics at the University of Toronto. Dr. Wilson will speak in Bakersfield on the evening of November 24th and at a luncheon meeting in Los Angeles on November 25th. The luncheon meeting will be held at the Roger Young Auditorium, 936 West Washington, Price \$2.00 per plate. Reservations should be telephoned to Mr. Carl Savit, MI-5772, or Mr. Savitt should be notified by mail at 523 West 6th Street, Los Angeles 14.

Dr. Wilson will speak on the results of geophysical and geological studies of the Canadian Shield which were made for the purpose of studying its origin and structure. He will also offer some ideas which have a bearing on the origins of Continents and Mountain Systems.

All members of the A.A.P.G. are cordially invited to attend either the meeting in Bakersfield (details of which will be announced locally) or the meeting in Los Angeles.

### DUES

1953 dues for the Pacific Section, amounting to \$2.00, are now due and payable for those persons who were unable to make payment at the Convention. Checks should be made payable to the Pacific Section A.A.P.G. and sent by mail to the new Treasurer, Mr. Tom Folsom, Honolulu Oil Corporation, 612 South Flower Street, Los Angeles 17, California

### BAKERSFIELD MEETING

Dr. V. L. Vanderhoof of Intex Oil Co. gave a very interesting and timely talk on recent and historical earthquakes of California at the dinner meeting on October 14 attended by Valley geologists and their wives.

The first historical record of an earthquake in California was reported by the Portola Expedition on July 28, 1769. No definite data is available as to how severe or extensive it actually was. The six most severe quakes known in California were described by Dr. Vanderhoof as follows:

- 1. March 1872, Owens Valley near Lone Pine. A magnitude of 8.3 was assigned, and ten percent of the thousands of after shocks were considered severe. A vertical scarp 23 feet high with 20 feet of horizontal displacement was produced.
- 2. April 18, 1906, San Francisco. A surface trace 160 miles long with up to 20 feet horizontal movement was found on San Andreas fault after this quake of 8.25 magnitude. Seven hundred deaths and a billion dollars of damage were reported.
- 3. January 9, 1857, Fort Tejon. The epicenter of this quake of magnitude about 8 may have been on San Andreas fault in Carrizo Plains.
- 4. June 1838, San Francisco region. The magnitude of this quake is estimated at 8.
- December 21, 1812, Santa Barbara, Ventura and north Los Angeles Counties. A 50 foot wave at Gaviota followed this quake of 7.6 magnitude.
- 6. July 21, 1952. Tehachapi. A magnitude of 7.5 was recorded for this quake. The following localities have felt earthquakes of lesser magnitude but of greater intensity:
  - 1. Santa Barbara, June 29, 1925, 6.3.
  - 2. Long Beach, March 10, 1933, 6.3.

  - Imperial Valley, May 18, 1940, 6.8.
     Bakersfield, August 22, 1952, 6 or less.

It is interesting to note that the Bakersfield shock of August 22, 1952 was the best documented quake in history.

### BAKERSFIELD OFFICERS

New officers of the San Joaquin Valley Geological Society were announced at the dinner meeting on October 14th.

H. V. (Vic) Church, Oceanic Oil Co, was elected Chairman replacing Bill Cortright.

Lesh Forrest, M.J.M.& M. Oil Co, will be Vicechairman replacing Everett Pease.

Darrel Kirkpatrick will be the new Secretary-Treasurer replacing Brad McMichael.

### LOST AND FOUND

A copy of Division of Mines Bulletin #141, Guidebook of the Mother Lode Country, was left by some member in the Golden State Room of the Statler Hotel during the Convention. This book has been found, and is presently in the possession of Mr. Vince Scurry at the Seaboard Oil Company in Los Angeles. He will be happy to deliver it to the owner on request.

### GEOLOGICAL LUNCHEON

Mr. Harold Sullwold, consulting geologist currently working towards his doctorate at UCLA was guest speaker at the geological luncheon on October 2nd at Rodger Young Auditorium.

Harold described, with aid of many outstanding Kodachrome slides, a trip taken last summer to Alaska over the Alcan Highway. The party of five including his wife, Mayla, children and mother-in-law drove to Banff and Lake Louise and thence over the Hart Highway to Dawson Creek. From there they followed the Alcan Highway to Whitehorse and Fairbanks. More or less modern accommodations were found along the entire route. Near Fairbanks they visited the site of large scale gold dredge operations. Excellent slides were shown of many phases of the operations. These include stripping over-burden, thawing perma-frost with water, and sampling the material brought up by the dredge buckets. Sullwold pointed out that the operators were as closemouthed as wildcatters when the subject of daily production was mentioned.

A side trip to the village of Circle on the Yukon River proved eventful when their car sank in the mud and had to be pushed out by a truck.

On return to Fairbanks, the group crossed the Alaska Range and headed for Anchorage. It was there that the now humorous incident of car selling began that reached a hectic climax in Seward only minutes before the deadline to get the car aboard ship.

It is hoped that geological groups in other areas may have the opportunity to hear this talk!

### PERSONAL ITEMS.

M.J.M. & M. Oil Co. has opened their offices in Ventura at 364 E. Santa Clara St -- Telephone -- Miller 8-2436.

The Coastal Geological Society held its annual fall dinner-dance at the Mar Monte hotel in Santa Barbara Friday night the 26th of September. There were 57 couples present -- mostly geologists and their wives. The "barbar shop harmony" crowd were thrown out of the joint at 4:00 a.m. by the request of the patrons who obviously were péasants. A good time was had by all.

During the summer Dr. Thomas Clements and Dr. Richard Merriam worked on desert research for the U.S.Army Quartermaster Corps in various parts of the desert from Tucson to San Bernardino and from the Colorado River to Mexico. Graduate students Richard O. Stone and James Eymann assisted in the project.

Dr. John Mann, Jr. was working on another Army contract on windblown sand this summer.

Dick Reese, another long time Pacific Section member and formerly division geologist for Standard in Los Angeles came down for the meeting from his Canadian post of Chief Geologist for Hudsons Bay Oil and Gas Co.

J. W. "Jack" Harding has resigned as assisttant Chief Geologist of Hancock to become a consultant with temporary offices at 5421 Monlaco Rd., Long Beach 5-5715.

### FLASH

R. B. (Bob) Kelly of Continental in Los Angeles, has accepted the job of Editor of the Pacific Petroleum Geologist for the coming year.

The Northern California Geological Society has changed the meeting place for the regular weekly Monday noon luncheons to the Fraternity Club on 345 Bush Street, San Francisco. Charley Cross, chairman, wishes to emphasize that all visiting geologists are cordially invited to attend.

Paul E. Carlton, U.C.L.A. graduate and more recently with Core Lab in California, has joined the ranks of Tide Water Associated Oil Co. and is now doing geological work in their Casper office.

Bill and Joan Schlax are the very proud parents of a baby girl, Wendy Margaret, born Oct. 11, 1952 and weighing 7 pounds 5 oz. Bill is Sacramento Valley district geologist for Superior Oil Company with offices in Willows.

Mike Adams has recently joined Western Gulf's Santa Maria office as scout for the coastal area. Mike was formerly with the  $C_*C_*M_*O_*$  in Fellows.

Henry Walrond, General Petroleum's very eligible bachelor, is now doing geological field work in the Walnut Creek-Livermore Area.

Continental Oil Co announced that Howard Semler and Phil Patten have exchanged geographical places. Howard is now working in Bakersfield and Phil has been assigned to the Sacramento office.

Scout reports have it that C.M. "Kit" Carson will leave TWA in Ventura to go into consulting.

George Knox, president of California Standard in Calgary, was seen at the Pacific Section meeting.

We don't know why we have just heard that the Erwin Mosers (Standard, Los Angeles) greeted twin boys, Donald and David, on August 7th. Erwin states these arrivals constitute the first and last for the Mosers.

The Ralph Kraetschs welcomed their first child, Edmund William, on October 13.

Charlie Prewett, Shell Long Beach district geologist, will be leaving California shortly via Midland, Tulsa and New Orleans for the Hague, where he will arrive in January for about a sevenmonth stay.

Tod Harding, M.A. from U.C.L.A., has joined Humble's geological staff in Los Angeles.

 $\mbox{M. C.}$  Lachenbruch, formerly with Shell, is now with Western Gulf in Bakersfield.

Bill Emerson, Wilshire, has returned to Bakersfield after a summer in the Rockies.

Wedding bells are scheduled to ring for Marshall Ayres, Standard in Bakersfield, and Betty Poteete on November 29, in Taft.

Jack Nisbett, Richfield in Bakersfield, and Sally Selby were married in Beverly Hills on October 18.

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"Arroyo-Cutting and Filling." Ernest Anteds. p. 375

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### The Oil and Gas Journal. October 20, 1952

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"Quake Damage at Tejon Hills." p. 1

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"Ripple Marks Aid Geologists." Oren F. Evans. p. 153

"A Challenge to the Geophysical Industry." Bart W. Sorge. p. 160

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### CALENDAR

- Nov. 13, 1952, Thurs., 6:30 p.m., AIME, Junior Petroleum Group Dinner Meeting, Rio Hondo Country Club, Downey: C. F. Gates of General Petroleum Corp., "The Cole Creek Field."
- Nov. 17, 1952, Mon., 7:00 p.m., AAPG, Pacific Section Forum, General Petroleum Auditorium, Los Angeles: Mr. Wm. R. Moran of Union Oil, "Travelogue on Paraguay" with slides.
- Nov. 18, 1952, Tues., 7:00 p.m., AAPG, Coast Geological Society Meeting, Barbara Hotel, Santa Barbara: J. R. Pemberton, consultant "African Trip" with slides and movies.
- Nov. 18, 1952, Tues., 8:00 p.m., API, Taft Petroleum Club: Speakers to be announced. Meeting to be preceded by a barbeque dinner at 6:15 p.m.
- Nov. 24, 1952, Mon., 7:00 p.m., AAPG & SEG, Joint Dinner Meeting, El Tejon Hotel, Bakersfield: Distinguished Lecturer, Professor J. Luzo Wilson from the University of Toronto, "Formation of Continents."
- Dec. 2, 1952, Tues., 7:00 p.m., AIME, Dinner Meeting, Saddle & Sirloin, Bakersfield: "Evaluation of Reserves." Speaker to be announced.
- Nov. 20, 1952, Thurs., 6:00 p.m., Northern California Geological Society dinner meeting, Fly Trap Restaurant, 73 Sutter Street, San Francisco. Meeting is for members and their wives. Dinner will begin at 6:30. J. R. (Bill) Pemberton will present an illustrated talk on his recent trip through Africa. Please make advance reservations with R. W. Anderson or Charles M. Cross at Honolulu Oil Corporation, 215 Market Street, San Francisco, Sutter 1-3123.



Mr. Fred R. Neuman 381 E. 4th St. Chico California

Pacific Coast

## PACIFIC PETROLEUM GEOLOGIST

## NEWS LETTER OF THE PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

Vol. 6 December 1952

### ASSOCIATION ACTIVITIES

### HOLIDAY DINNER DANCE

The Christmas formal dance held last year at Oakmont Country Club was such a huge success that the Executive Committee has decided to stage the affair again this year.

Committee Chairman Stan Siegfus reports that the Oakmont has been reserved for December 27th. United Geophysical Company, through the courtesy of Mr. Herbert Hoover, Jr. and Mr. Ed Pielemeier, are favoring all guests with a cocktail party from 7 to 8 p.m. A prime rib dinner, under direction of Committee Member Ted Bear, will be served from 8 to 9 p.m. Dancing will start at 9 p.m. and last until 1 a.m. with Bruce Hudson's music of radio fame furnishing the rhythm.

Reservations for tables of 12 should be made in one person's name and sent, together with checks, to John's. Loofbourow, Sunray Oil Corp., 714 W. Olympic Blvd., L. A. 15, Calif. The names of all members of the party should be indicated with the table reservation. Space is limited to 150 couples, so act promptly.

### L. A. FORUM MEETING

Mr. S. T. Yuster, Professor of Petroleum Engineering at UCLA, and Mr. W. R. Moran, geologist with Union Oil Company of California, were speakers at the Forum Meeting held on November 17, 1952.

Mr. Yuster spoke on the subject "Some Theoretical Considerations of Tilted Water Tables." In his discussion the speaker developed with the aid of diagrammatic illustrations and formulae some of the dominant factors, both static and dynamic, which contribute to the phenomenon of tilted fluid contacts found in many petroleum reservoirs.

One important static factor is that of capillary rise. Yuster pointed out that in a reservoir preferentially wet by water, the latter tends to rise higher above the free water table in a small capillary than in a large one. This indicates that, in general, the oil-water interface may be expected to be higher in the sands of lower permeability than in those of higher. The free water table was defined as being the position that the oil-water interface would assume in the absence of any capillarity.

Another static factor is that of variation of contact angle of fluid interface with the sand surface. This angle - more or less an index of the sand's wetability - results from the adsorption of polar and higher molecular weight compounds during oil migration. This adsorption nearest the source bed tends to make the formation less water wet coincident with an increase of the interface angle. Barring other variables, the net effect is a lower height of water rise with the down slope of the interface trending in the direction of the source bed.

A third static factor is that of interfacial tension. The speaker explained that this variation

may be the result of differential adsorption of certain compounds as the oil migrates from source beds to reservoir. Those compounds most polarizable would be adsorbed first and a concentration of such compounds nearest the source beds would result in a lower interfacial tension between the oil and water here than at a point farthest from the source bed where those compounds giving lower tension values would be at a minimum. With this in mind, Mr. Yuster pointed out that the construction of maps utilizing isotension lines could possibly indicate the direction of oil migration from the source bed as an aid in exploratory work.

No. 12

The last static factor considered was that of variation in fluid density. The speaker pointed out that the density of oil tends to decrease with increase of the distance the oil has migrated. A plot of this change in density yields a trend similar to that caused by adsorption.

As one dynamic factor which may possibly result in tilted water tables, Mr. Yuster first discussed rate of tilt. One accepted theory proposes that the rate of an interface settling back toward equilibrium is sometimes less rapid than the rate of tilt of formation. By means of models in which he could approximate the time required for an interface to settle, the speaker demonstrated that such a condition would require an abnormally rapid rate of formation tilt. Consequently, he does not consider rate of tilt a valid explanation for tilted water tables.

A second dynamic factor discussed was the circulation of fluid within a reservoir. Mr. Yuster demonstrated that a tilting of fluid contact may result from the presence of oil and water in a reservoir with one or both fluids in movement. In his model the speaker assumed the oil to be stationary with the underlying stratum of water flowing through the reservoir. In such a case the water table tends to incline in the direction of the flow of water. The same direction of inclination could result if the oil were flowing in the opposite direction and the water stationary.

In conclusion, Mr. Yuster emphasized that his concepts would bear further study, particularly in applying actual field data, but that an analysis of this type of data should aid in exploring for new oil accumulation, especially when tracing the direction to source beds from presently known accumulations.

For his portion of the program Mr. Moran presented an interesting travelogue illustrated by numerous colored slides. Most of the pictures were of Paraguay - particularly the Chaco country and gave the audience an excellent concept of the type of country and culture of that part of South America. For example, the illustrations emphasized the primitive mode of transportation for the back country where roads, as such, are practically non-existent. Here, the oxcart, with wheels 10 to 12 feet in diameter, constitutes the standard in rolling stock. These chariots do not appear to have much speed but, on the other hand, they cer-

## EXECUTIVE COMMITTEE, PACIFIC SECTION AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

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### PACIFIC PETROLEUM GEOLOGIST

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Personal Items:

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Bob Kelly

Selected Bibliography: Calendar: Cartoonist: Coast Representative: Sacramento Representative: San Francisco Representative: San Joaquin Representative:

Bob Anderson

Next deadline Dec. 29, 1952

tainly should not "high center" as easily as the more modern automotive equipment such as used by Moran,

The speaker also took his audience across the Andes by rail. This was a very scenic ride with the grade up the east side as far as the summit being negotiated in daylight. Mr. Moran mentioned that most travelers prefer to make this trip by air, which he thought rather strange in view of what was to be seen by one making the trip by train. However, it was the concensus of at least part of the listeners that one precipitous stretch over which the train had to be drawn by cable, with nothing but plenty of down to the rear, may have had something to do with this.

Parts of Bolivia and Peru were also visited. Excellent shots well illustrated some remains of the Incan civilization in the form of terracing of steep hillsides for agricultural purposes and masonry of building walls in which stone cut to various sizes and shapes were expertly fitted with-

out benefit of mortar.

When he reached Lake Titicaca, lying at an elevation of 12,500 feet on the border of Peru and Bolivia, Mr. Moran had the good fortune of arriving at a lakeside village during the third day of a ten-day fiesta. Judging from a quick count of the empty bottles and the obvious abandon of the dancers, one would gather from the pictures that a very good time was had by all, from toddler to grandpa.

### COAST MEETING

The dinner meeting of the Coast Geological Society was held November 18 in Santa Barbara. At this time the new officers for the coast group were installed. They are as follows:

Robert Paschall, Amerada, President Gordon Bell, Western Gulf, Vice-President Stan Jeffreys, Shell, Secretary Robert Ortalda, Standard, Treasurer Mr. Paschall announced the dec ision

Mr. Paschall announced the decision of the Coast Geological Society to contribute \$40.00 to the AAPG Headquarters Building Fund.

Mr. J. R. Pemberton was the speaker of the evening and presented his very interesting illustrated lecture on South Africa.



### SAN FRANCISCO MEETING

J. R. (Bill) Pemberton gave a very interesting travelogue of his recent trip through Africa before the Northern California Geological Society's dinner meeting at San Francisco's Fly Trap Restaurant on November 20, 1952. Bill showed many excellent pictures of the wild life and native tribes peculiar to the countries and geographical provinces along his route from Capetown to Addis Ababa. The only doubt remaining in the minds of some of the audience is whether or not Pemberton is on a retainer of the African Chamber of Commerce.

### PETROLEUM CLUB TOURNAMENT

The First Singles Round Robin Cribbage Tournament of the Petroleum Club of Los Angeles ended in a strenuous battle between Olen Lane of Continental Oil Co., champion of the Roustabouts, and Glen W. Ledingham of Western Gulf Oil Co., champion of the Roughnecks. In order to expedite the play, the 28 original entries were divided into two groups -- the Roustabouts and the Roughnecks. The play-off match was won by Olen Lane, who came from behind to nose out all of his fellow Roustabouts and continued his winning form to beat out Glen Ledingham for the Club championship. Prizes, consisting of gold mounted and suitably engraved cribbage boards, were presented to the winner and finalist at the Petroleum Club on November 12 by S. Z. Natcher, Standard Oil Co. of California, vicepresident and chairman of the House Committee.

### LOCAL BOOSERS

Quite a few of the Los Angeles geologists and others passing thru town have been gathering at Boos Brothers Cafeteria downtown every Thursday noon, barring any other geological event, for lunch and fellowship. Everyone is most welcome. Just pick up a "tray full for a trifle" and go top-side to the balcony where you can't miss them.

### PERSONAL ITEMS

Humble has announced the addition of Dick Noble,  $M_{\bullet}A_{\bullet}$ , from UCLA to their geophysical group in Los Angeles.

Two other Bruins, Larry Ronneberg and Bob Gregory, have recently joined Humble's Santa Paula geophysical group.

It was good to see Sam Stewart of Richfield's Canadian office in town the other day and we are very glad to know his wife, Irene, is making good progress. She was a recent polio victim in Edmonton, Canada.

Mr. J. Howard Marshall from the Lone Star State, has been voted a Vice-President of the Signal Oil and Gas Company in charge of Exploration. He fills the vacancy caused by the death of D. H. Lycan of Los Angeles.

Bill McKersey, formerly of Kern Oil, is now associated with Seaboard Oil in their Los Angeles office.

Seaboard's Jack West has now transferred his headquarters from Los Angeles to Bakersfield.

Karl Kennedy has joined Western Gulf's Bakersfield Geological Department as scout. He was formerly with Schlumberger in that area and replaces Hal Hanson of Western Gulf who has resigned.

Don and Lois Herring are the proud parents of a new little daughter, Margaret, born November 14. Don is a geologist for The Texas Company in the Los Angeles offices. Little Margaret has a brother 2 years old.

Joe B. Long, Los Angeles Basin Scout for Standard Oil, personally prepared, cooked, and served a really super turkey dinner with all the trimmings on Thanksgiving to a group of his friends. Incidentally, "Chef" Long is not yet to be listed among the benedicts - Desk and Derrick Club please note!

Mr. Clark Edgecomb of Schlumberger in Ventura will be leaving January 3 for Houston, Texas to take over his new duties as Assistant Sales Manager for Schlumberger. Mr. Don Swiers, Manager for Schlumberger in King City, will be transferred to Ventura to take over the position created by the promotion of Clark Edgecomb.

- Mr. C. M. (Kit) Carson, who is leaving the Tide Water Associated Oil Co. to become a consulting paleontologist, will open his new offices at 461 E. Main St., Ventura. Kit has concluded 18 years service in Ventura for T.W.A.O. Co.
- R. D. (Bob) Hoffman, recent Stanford grad, has been assigned to the Bakersfield Geological Dept. for Tidewater.

Floyd Johnson, Honolulu, has returned to Bakersfield for the winter.

We are happy to announce that Bob Hindle of Sunray is back on the job after several weeks in the hospital fighting tetanus and the effects of the tetanus antitoxin.

Max Payne is now doing consulting geology from his home at 14 Car lina Avenue in San Anselmo. Max was formerly with the Natural Gas Corporation in San Francisco.

R. B. (Dick) Haines has been promoted to Assistant Regional Geologist with headquarters in Continental's Los Angeles office, replacing J. N. Huber who resigned.

Roger Dungan will replace Haines as Division Geologist in Continental's Ventura geological office.

Sam Tate is now Humble's scout in Bakersfield. Sam transferred to California from Louisiana.

Dan Flynn has opened a geological field office for General Petroleum in San Fernando, 206 Mission Bldg., phone: Empire 1-9616.

Leslie Schultz, U.C. '52, has joined General Petroleum's geological staff in Los Angeles.

Louie Waterfall has eliminated the necessity of a daily stay in the downtown L.A. smog belt by moving his consulting office to his home in Glendale: 1105 Hillcroft Rd., phone: Citrus 1-1037.

Jerome Petrie is now working with the International Boundary and Water Commission of the State Department in Alpine, Texas.

Ray Arnett (Richfield) has been transferred from Bakersfield to the Los Angeles office, where he will work largely on out of state geological problems.

John Browning, of Shell's paleo lab. in Bakersfield, has been transferred to Long Beach.

Allan Hershey, U.S.C. grad, has joined the Shell Oil Co. paleo lab. in Bakersfield.

Swiss Holmes of Shell Oil Co. was the winner of a raffle for two Big Game tickets at the recent San Francisco geological dinner meeting. This, however, was routine and comparatively small potatoes for Swiss, as he held the winning number for a new Chevrolet a year or so ago.

John Huber has accepted a position with D. D. Feldman Company.

R. D. (Bob) Hoffman, a recent Stanford grad, has been assigned to the Bakersfield Geological Dept. for Tidewater.

Ray Pearson (Richfield) is back on the job in Los Angeles with an impressive sun tan acquired during a recent stay in Honolulu. Ray is very proud of his mastery of the surfboard and anxious to tell that he can ride it "no hands" with no difficulty.

"Rats" Rathwell came down from his home in Paradise, Butte County, and greeted his many old friends at the convention. "Rats" was formerly a geologist for Continental at San Miguelito. It is understood he may soon be available for consulting work.

Jack Knight, now looking out for British-American's interests in Denver, was given a rousing send-off last Friday night (which was nonetheless dampened due to the rains) by an auspicious gathering of fellow geologists. He is moving his family to the Rockies this time.

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### Special Report 23

"Exploratory Wells Drilled Outside of Oil and Gas Fields in California to December 31, 1950." Gordon B. Oakeshott, Lewis T. Braun, Charles W. Jennings and Ruth Wells.

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### The Oil and Gas Journal.

"The Williston Basin - Today's Newest, Most Exciting Oil Province." S. F. Bowlby, November 17, 1952, p. 17

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"The Powder River Basin." Tom Dougherty. p. 82

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Vol. 6 No. 12

### World Oil, November 1952

"What About Southeastern Colorado." John C. Maher. p. 101

### BOOKS

"The Continental Shelf." M. W. Mouton, Martimus Nijhoff - The Hague.

"Theoretical Petrology." Tom F. W. Barth, John Wiley and Sons.

### CALENDAR

Dec. 8, 1952; Monday, 7:30 p.m., SEPM Meeting, Auditorium Room 2276 Geology - Chemistry Bldg., UCLA: W. P. Popenoe, Curator of the Geological and Paleontological Museum at UCLA, "Cretaceous Formations and Faunas of Southern California."

Dec. 27, 1952; Saturday, 7: p.m. - 1:00 a.m., AAPG, SEG, SEPM - Annual Christmas Dinner Dance, Oakmont Country Club, 3100 Country Club Drive, Glendale. \$9.00/Couple.



Mr. Fred R. Neuman 381 E. 4th St. Chico California