Pacific Petroleum Geology
NEWSLETTER
Pacific Section • American Association of Petroleum Geologists
March and April 2024

Pacific Section AAPG's 100th Anniversary

Pacific Section Geologists
Go to War
See Page 8 for the History of the War Years

PayZone Inc.

Geological and Petrophysical Consulting Services

www.payzoneinc.com

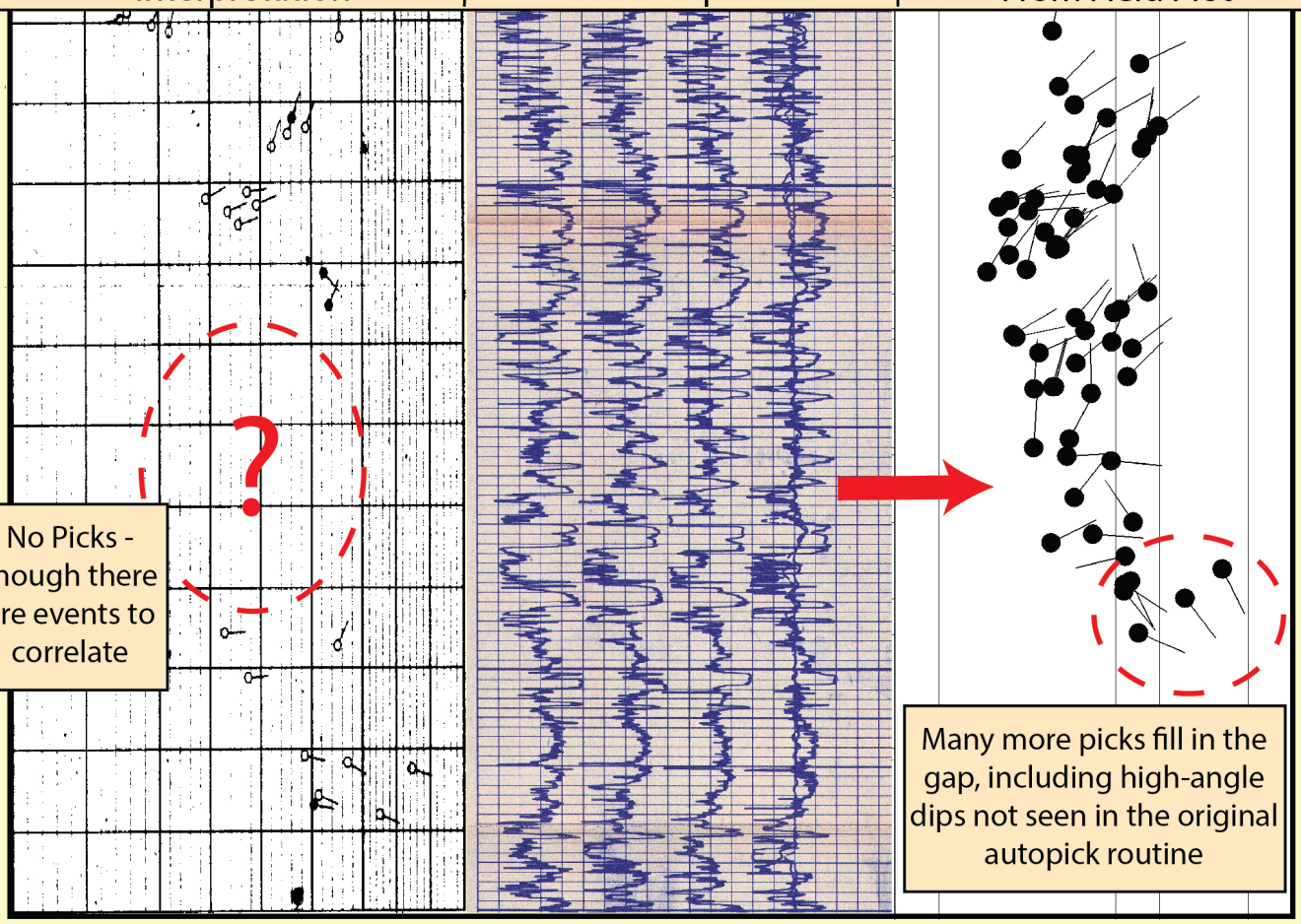
661-387-1715

- Reservoir characterization, geology, and petrophysics, logs of all ages
- Specializing in problem-solving and difficult reservoir questions
- 40+ years of experience in California oilfields
- Training in log analysis and field studies - customized private courses and mentoring available
- Image log and dipmeter interpretation and analysis

Featured Service: Dipmeter Log Resurrection

In geologically complex areas, it isn't always possible to obtain new image logs for structural information where you want them, but often there are dipmeters available which we can, in many cases, re-interpret to extract better dips than were provided by the original automated interpretation routines.

Original Automated Dip Interpretation	Field Plot of Raw Curves, 4-Arm Dipmeter	New PZI Re-Interpretation From Field Plot



Deborah M. Olson, President
Geologist/Log Analyst
dmolson@payzoneinc.com
661-747-0375

Find out how we can help you with your reservoir!
See us at www.payzoneinc.com or call us anytime

Tom Howard, Image Analyst
tomh@payzoneinc.com
832-407-2862

2023-2024 Officers

President	Kristy Whitaker president@psaapg.org
President-Elect	Amy Spaziani president-elect@psaapg.org
Vice President	Vacant
Secretary	Kenton Crabtree secretary@psaapg.org
Treasurer	Simmie Chehal 661-665-5738 SKChehal2@aeraenergy.com treasurer@psaapg.org
Treasurer-Elect	Lisa Alpert 310-351-6977 LAAlpert@aeraenergy.com treasurer@psaapg.org
Past President	Plamen Ganev 310-562-8654
Editor-in-Chief	Tony Reid 661-303-7817 tonyr0209@gmail.com editor@psaapg.org

Staff

Web Master	Mike Clark 661-378-8134 rocksniffer@aol.com
Membership Chair	Simmie Chehal 661-665-5738 SKChehal2@aeraenergy.com
Publications Chair	Larry Knauer 661-205-4463 laknauer@aol.com
Advisory Council Rep 2021-2024	Dan Schwartz 661-432-5407 dan.schwartz@driltek.com

Contents

Editor's Comments: Many Pacific Section geologists traded their rock picks for uniforms just before and during World War II. Read about the exploits of several members, and of the 1009th Engineer Oil Field Battalion on Page 8.

Since the beginning of the Pandemic, we have struggled to bring our members together in meetings and field trips. We are trying a new feature – conversations with Pacific Section Geoscientists – to introduce members to all of our affiliated societies. See Page 15 for the first conversation.

Submit an Article to the Pacific Petroleum Newsletter!

- CONTACT THE EDITOR at editor@PSAAPG.org
- Images (graphics, photos, and scans) must be at least 300 dpi resolution. Text should be at least 600 dpi.
- Scanned photos, illustrations (line art) or logos should preferably be submitted as a .tif, .gif, or .bmp; .jpeg

Advertising Rates

New, Lowered Rates for Full, Half and Quarter Page Ads

Members	*Single Issue*	*Year (6 issues)*
Full Page	*$200.00*	*$600.00*
Half Page	*$125.00*	*$400.00*
Quarter Page	*$75.00*	*$200.00*
Business Card		*$100.00*

Societies Free Advertising:

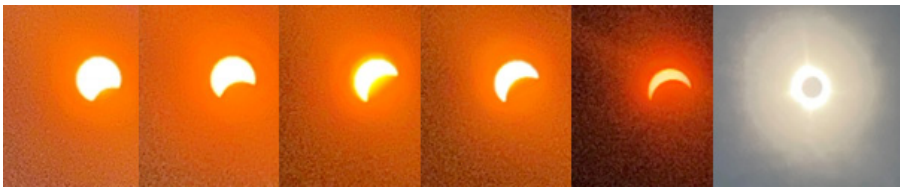
Convention: Unlimited Space in PSAAPG Newsletter

Dear fellow PS-AAPG members,

The month of April had a planetary geology event for us, and I was lucky enough to travel to visit family who live in the totality band. I thought I would share a bit of the experience and a few photos with my PS-AAPG friends to encourage you to be part of the next solar eclipse.

We traveled to the Cincinnati, Ohio, area to visit my sister and her family and from there traveled to Dayton where there was totality for two and a half minutes.

As the sun approached 100% covered by the moon, the temperature dropped, and a breeze picked up. It wasn't total darkness but as the picture above shows, it was close. It reminded me of winter days in Alaska when the sun barely breached the horizon.



I used the camera on my phone to capture the movement of the moon across the sun (above) using a special lens. The experience was amazing, I am glad I could share it with my kids and family, and I look forward to the next solar eclipse.

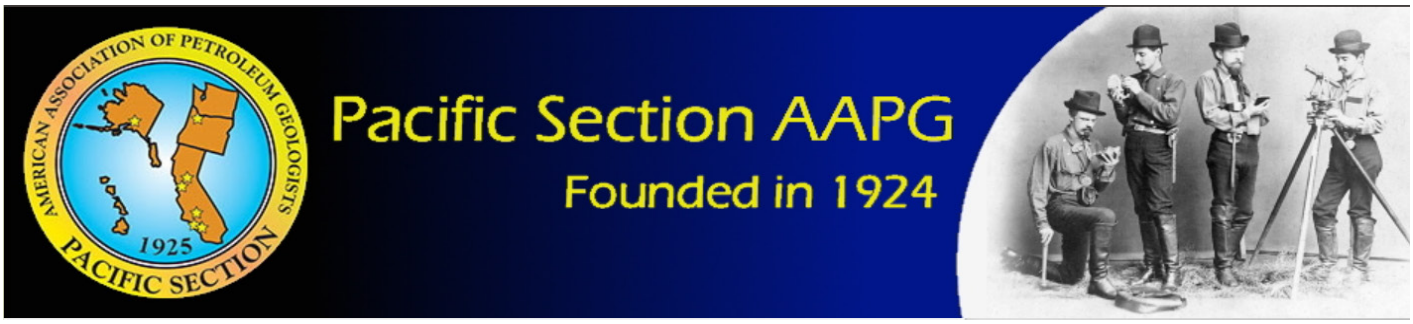
This is the perfect reminder for us all to engage in outreach or nominate a teacher of the year. I also want to congratulate all the students who received scholarships from their local societies this year and thank everyone who nominated them.

In closing, I want to remind members that we are looking for volunteers to help with the 100-year celebration. Contact your local society or myself if you would like to be part of the party.

I also ask that you vote in the upcoming election for your PS-AAPG executive committee for the 2024-2025 year and on the changes to the by-laws.

All the Best.

Kristy Whitaker
President



100-year Anniversary Logo Competition

Be part of the 100-year anniversary celebration by having some fun designing a logo for the event!

The competition is open to all PSAAPG members, family members, and students within the Pacific Section.

Winner will be chosen based on quality of logo, and incorporation of features such as diversity of Pacific Section and its affiliate societies, historical significance, and geologic elements relative to the Pacific Section region.

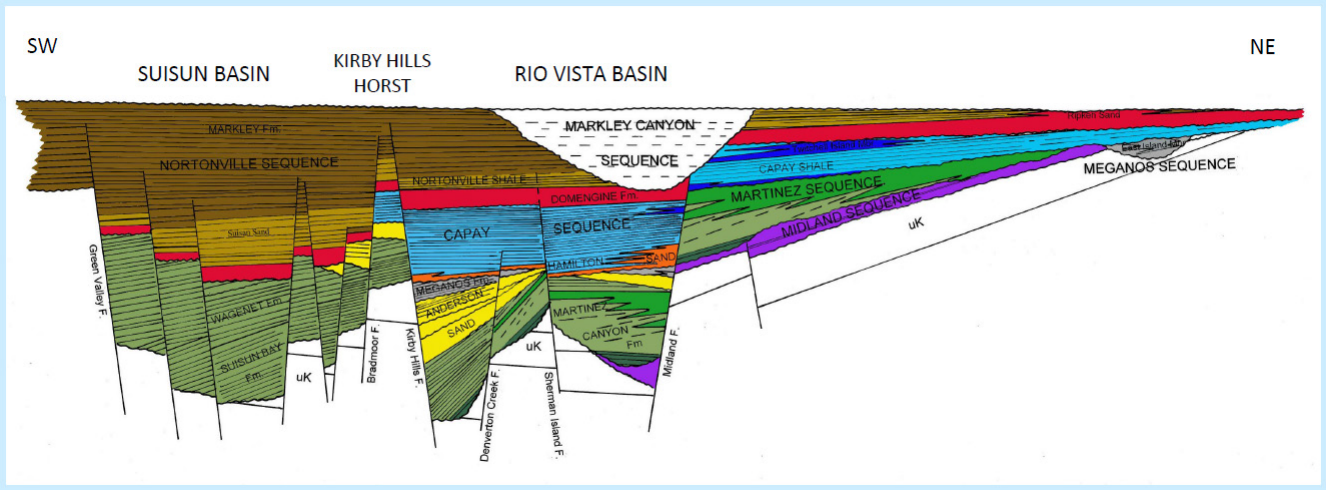
Submit logo designs and any questions to editor@gmail.com by July 1st, 2024. Please submit files as a .jpg, .tif, .ppt, .pdf, or .png file.

Winner will receive the option to attend a PSAAPG field trip for free or 3-year membership!

Pacific Section AAPG Digital Publication CD 7

Advances in the Geology of the Sacramento and Northern San Joaquin Basins

since PSAAPG Miscellaneous Publications 41 and 43



This volume is an important contribution to the geology of the Great Valley and captures much of Vic Cherven's work during his 50 years of research in the valley. His paper on the Northern Diablo Range incorporates a great variety of surface and subsurface data, some of which were supplied by Al Almgren, to identify and map a dozen submarine fans that were deposited during the last 35 million years of the Cretaceous Period. The paper on the early Tertiary sequence stratigraphy of the southern Sacramento Basin also makes extensive use of data supplied by Al and others, and is an exceptionally detailed and comprehensive analysis of the interplay between tectonics, sedimentation, and eustacy. A companion paper summarizes and clarifies the nomenclature used for these lower Tertiary strata and describes previously unrecognized members of several formations. A third paper on these lower Tertiary rocks illustrates them in a highly detailed structural cross section that extends more than 30 miles across the basin and includes 50 closely-spaced gas wells.

At the other end of the scale are two papers that look in detail at individual formations in local areas. One paper describes the stratigraphy and alluvial-fan facies of the Valley Springs Formation in its type area, and a second paper, co-authored with Pete Fischer and Scott Hector, is a detailed study of the facies, geometry, and gas production from two lobes of the Winters submarine fan in the Walnut Grove gas field.

Included in the 2023 version of the CD is a dedication to Al Almgren, the renowned California micropaleontologist and stratigrapher who died in 2020 at the age of 100. Al and Vic Cherven were friends for almost 40 years, and Al provided paleo data for Vic's dissertation. Over the years Vic and Al had dozens of discussions about the geology of the Central Valley, and Al's influence on Vic is demonstrated throughout the articles in this volume. Scott and Vic intended to dedicate a volume as early as 2011, and with this second printing of Volume CD 7 we are able to include Mark Filewicz's eloquent dedication to Al.

Advances in the Geology of the Sacramento and Northern San Joaquin Basins

since PSAAPG Miscellaneous Publications 41 and 43

Table of Contents

Available only in CD form
Price: $45.

To purchase, contact:
Pacific Section AAPG
Publications Chair
P.O. Box 1072
Bakersfield, CA, 93302

or contact Larry Knauer at
laknauer@aol.com.

Reprinted from *62 Years History of the Pacific Section American Association of Petroleum Geologists 1924-1985*, PS AAPG Book MP 36

HISTORY OF THE PACIFIC SECTION OF THE AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS

THE WAR YEARS
1942 – 1946

Charles F. (Fred) Green, Book MP 36 Editor

Unfortunately the Pacific Section files do not contain minutes of the Executive Committee meetings until the early 1950's, and the Pacific Petroleum Geologist did not start publication until 1947. Thus, historical information during this period, and for that matter, during the earlier years, is scarce. By hearsay geologists on the home front pursued the usual activities. Core parties continued, though with gasoline scarce, car pooling was common. Exploration drilling, dry holes, and discoveries all went on as in peacetime as did the annual meetings noted below.

At the national level a service committee was formed, the purpose of which was so that the AAPG could render as much service as possible for our membership and at the same time attempt to place the specialized qualifications of the petroleum geologists before the different governmental agencies and thus fit them into spheres in which their training and experience could be used most advantageously for the benefit of the country.

Distinguished geologists served on this committee, including Frank A. Morgan from the Pacific Section.

Meetings

Pacific Section annual meetings were held as before during these years. In 1943 the meeting was limited to one day only. Two-day meetings were held in 1944, 1945, and 1946. All of these meetings took place in Los Angeles. Many well known names in the Pacific Section contributed papers or officiated. These included, among others, Frank A. Morgan, Wayne Galliher, Richard Reese, Earl Noble, Harold Hoots, John Hazzard, Robert Atwill, Homer J. Steiney, Martin Van Couvering, Joseph Hollister, Thomas Bailey, and A. I. Levorsen. Some of the papers related to the war effort, but for the most part technical papers prevailed.

Discoveries

Important discoveries during the war period included Pleasant Valley (1943), Edison Schist (1945) in the San Joaquin Valley, Thornton (1943), Kirby Hills and Maine Prairie (1945), and Winters (1946).

An interesting exploration anecdote was related to the writer by Pacific Section member Jack Beach in connection with the Schist discovery at Edison. Beach at that time (1945) was a geologist for Independent Exploration Co. (now Tesoro Petroleum Corp.) in Bakersfield. lndependent's partner, H. H. Magee, was the operator on a joint well being drilled in the Edison area. The well had penetrated into the basement Schist after encountering aboul 8' of oil sand lying directly on the Schist. Magee wanted to abandon the well but Beach thought the 8' of oil sand should be tested. Racing into Bakersfield, Beach obtained the go-ahead for a test from Lowell Saunders, his immediate superior. The test was surprisingly successful and resulted in the discovery of the Schist production at Edison. The Schist eventually covered an area of 1500 acres and dramatically increased the production of the Edison field. How much oil the 8' of oil sand produced is not known but credit should be given to this 8' for finding an oilfield.

In 1946 Independent Exploration Co. achieved another success by discovering the Salt Creek area of the Cymric Oilfield in Kern County.

Independent Exploration Company was an extremely successful exploration company in the 1946-1950 period. One of Independent's principal founders was Lowell Saunders, a Pacific Section geologist. Saunders had suffered a near fatal motor accident while driving away from a dry-hole in the Sacramento Valley, but survived to help start the company on the way to success.

Pacific Section Geologists in the Military and Civilian Service

Many geologists in the Pacific Section served in the military or civilian government service during World War II. The most complete listing of all those members of AAPG who served appeared in 1944 in the National Bulletin[8]. The lists published in the Bulletins were prepared by the National Service Committee of AAPG[9]. However, these lists may not be complete, inasmuch as they were prepared from a questionnaire sent to AAPG members.

The Bulletin[10] also published in 1942 the distribution of the members serving in the -several branches of the armed services and this is published below.

Army Air Corps	96
U.S. Navy (including Aviation) Infantry	58
Infantry	38
Field Artillery (including Anti-Tank Bn.)	28
Corps of Engineers	22
Armored Force	12
Coast Artillery and Guard	14
Army Ordnance	8
Signal Corps	6
Miscellaneous	13
Total:	295

Some geologists were fortunate enough to have assignments that enabled them to use their geological training. These included those assigned to photographic units in the Navy and Army Air Corps. Those assigned to the Navy as photo-interpreters included Ted Bear, present National AAPG President, William D. (Bill) Lewis, Peter Gardett, Phil Kistler, Vic King, Larry Brundall, Zay Smith, Art Wasson, Bob Mcconville and Everett Pease. Pease also served as a naval gunfire observer on beachhead landings, hardly less dangerous than jumping onto the beachhead in a parachute!

A number of Pacific Section members served in the Army Corps of Engineers. Included among these were Jim Anderson, Morton D'Evelyn, Drexler Dana, Ed Joujoun-Roche, Paul McGovney, Hubert Schenck and Bob Williams. Schenck became chief of the National Resources Section in General MacArthur's headquarters and remained in Japan for several years after the close of hostilities. L. C. (Lesh) Forrest served as an assistant to Schenck during the war years. Williams was also in General MacArthur's headquarters working on Terrain Studies and handbooks that were issued to troops making beachhead landings.

An activity in the Corps of Engineers directly related to the oil industry was the formation of a Petroleum Battalion. Alas, the Battalion was disbanded before starting on its mission. Jim Anderson, assigned to the Battalion, has provided the following account.

First Engineer Petroleum Production Depot
by
J. B. Anderson

During World War II the Corps of Engineers activated a unit of interest to people in the petroleum industry but little known by them at the time or later. It was the 1st Petroleum Production Depot staffed with 116 officers, 7 Warrant Officers and 1557 enlisted men. These were in a headquarters company of the First Petroleum Production Depot, the 1008th Engineer Refinery Battalion, the 1009th Engineer Oil Field Battalion and the 1005th Engineer Special Construction Company. The writer was assigned to the HQ of the 1009th Engineer Oil Field Battalion as a petroleum geologist. Several California oil men were assigned to these units. Geologist Ed Joujoun-Roche of Shell (Bakersfield), Capt. C. E. , was assigned to the Refinery Battalion. Dinney Post, Standard Oil (Bakersfield), Major C. E., was assigned to HQ of the Depot. Ralph "Firpo" McGoey, Union Oil (Bakersfield) was in the 1009th Oil Field Bn. Tom Moore, Halliburton (Los Angeles) was in one of the units. An other name that has come back from memory is Ernie Reynolds of Howard Supply.

Believe it or not, the 1st Petroleum Production Depot was activated in March, 1944 at the Santa Anita Race Track, then Camp Santa Anita. Within a month all units moved to Union Oil Co.'s Brea lease and formed Camp Brea complete with typical G. I. tar paper shacks, mess halls, etc.

Masterminds behind the scene in Corps of Engineer offices in Washington D. C. had before March 1944 put together Tables of Organization, Tables of Basic Equipment and Special Equipment necessary for conducting oil field operations. All equipment had been purchased, painted olive drab and boxed for overseas shipment and stored in military warehouses at Mira Loma, near the City of Riverside. Arrangements had been made with Union Oil Co. for the 1009th Engineer Oil Field Battalion to train by actually drilling to oil zones, logging, running casing and cementing as in regular oil field practice. On completion these wells were capped and not produced until the war ended.

There were five National "50" drilling rigs and five Cardwell Spudders. So for practice one National 50 (and one Cardwell?) were uncrated and put to work.

The 1008th Engineer Petroleum Refinery Battalion and the Engineer Special Construction Company trained in the Los Angeles Basin at refinery and manufacturing plants.

The Petroleum units were formed to occupy an island (near New Guinea?). The writer recalls it as Vogelsang where Shell had made an oil discovery before the war and had junked and cemented the wells ahead of the invading Japanese. The 1009th Oil Field Battalion was to drill new wells and put them on production. The 1008th Refinery Battalion had a small refinery to make Diesel fuel and gasoline. The Special Construction Company was nicknamed the "Drum" Company as it was prepared to make 55 gallon drums in the field for shipping products.

During the summer of 1944 top officers from the Depot HQ went to MacArthur's HQ in Australia to make arrangements for the units to move to the theater of operation. This group

returned with the news "they don't need us now" and that the end of the war was predicted for the summer of 1945. Also, because of intensive jungle fighting in that theater they could not spare the troops to protect the Engineer units from Japanese troops hiding in the jungles of the proposed operations area. So the 1st Engineer Petroleum Production Depot and its Battalions and Company were deactivated in September 1944 at the Pomona Fairgrounds. All drilling rigs and equipment were sent to the Navy's operations on the North Slope of Alaska in the Navy Petroleum Reserve Alaska, later the National Petroleum Reserve Alaska.

Another assignment directly related to geology was duty at the Naval Petroleum Reserve at Elk Hills. After service as photo interpreters Ted Bear and Vic King were sent to Elk Hills as Staff Geologists. Bear's subsurface mapping of faults established a pattern of irregular well spacing that took cognizance of prevailing geological conditions, eliminating the dry holes drilled on regular spacing as recommended by staff engineers.

The commanding officer at Elk Hills was Harry P. Stolz who reached the rank of Vice Admiral. As far as known this was the highest rank held by a member of the Pacific Section.

Lt. Anderson, geologist, 1009th Oil Field Battalion.

Many other members of the Pacific Section served in combat units, among whom were George Feister, Fred Green, Jack West, Darrel Kirkpatrick and Bob Maynard.

One of the most interesting of the combat assignments was that of Edwin (Ed) C. Stinemeyer, who was on General Patton's Staff, and spent the war years following "blood & guts" through Europe. Wesley (Wes) Bruer, Eugene F. (Bud) Reid and Richard (Dick) Hester, all at a very early age, and long before they were geologists or Pacific Section Presidents, volunteered for active service and served in overseas assignments.

Regretfully specific knowledge does not permit mention of all the others who dedicated these years of their lives to service for their country. There were many of them who were soldiers, sailors, and airmen, and one, at least who served in a civilian capacity in conditions as bad, or worse, than anyone in the military. His story is chronicled below.

War-Time Experiences, WWII of Dr. Robert M. Kleinpell by Robert N . Hacker

In 1939, 3 years before Pearl Harbor, Dr. Robert M. Kleinpell came to Manila and was employed as a field geologist for the National Development Corporation. He was captured by the Japanese early in 1942 and placed in the Santo Tomas (University) prison in Manila along with more than 4000 other civilian prisoners of war.

On May 16, 1943 most of the inmates of Santo Tomas were transferred to the Los Banos prison, a small agricultural college campus located about 30 miles south of Manila. Various of these

prisoners were qualified, college-level instructors and, as a means for the inmates of the prison to find something useful to do, a school was organized by these instructors. College level subjects taught included Medieval History, Ancient World History, Spanish, Economics, English, Japanese, Literature and Philosophy. Students of all ages who took these courses called themselves the Class of 47, based on their estimate of how long it might be before they were liberated. Dr. Kleinpell taught both Geology and Paleontology.

Kleinpell's class included approximately 16 students who were taken through a 20 weeks course in Historical Geology, followed by another in Cenozoic Geology. A typical student would acquire more than 100 pages of notes and detailed drawings of geologic strata as well as numerous invertebrate phyla. Kleinpell had not a single note for reference and he repeated the performance without repeating the material for 40 weeks. It was a phenomenal and extended tour de force of knowledge and memory.

The starving and debilitated prisoners were liberated by American and Filipino forces on February 23, 1945.

Dr. Kleinpell became Professor of Paleontology at the University of California, Berkeley. He retired from teaching in the 1970's.

Concerning another activity at the end of these wartime years, Jim Anderson submitted the following:

The Employment Committee
by
J. B. Anderson

In the years 1946 and 1947 the Pacific Section formed a committee to aid its members to find jobs as they returned from WWII service. There were about six or seven committee members but only three can be definitely identified at this time. The three are Pete Gardett, Fred Vandenberg and Jim Anderson. Each member had “office hours” one day a week for interviewing job seekers.

The committee decided that any company with over a certain forgotten number of barrels of annual production needed a geologist on their staff. The group was able to do some convincing and did find jobs for some of the Pacific Section members.

Early offshore work started with submarine coring as discussed in the following.

Submarine Coring
1945 - 1946
by
Bill Hawk

During the last years of World War II before seismic work was begun offshore Continental Oil decided to trace the Red Mountain Fault and structures in “front of” or south of it by trying submarine mapping of beds on the ocean floor. It was early determined that kelp lineations on some aerial photographs could not be found in critical areas or provide much actual dip information.

A consultant, Jim Chase, had done considerable work of this type in the Long Beach-San Pedro area for the Navy. His method used a telescoping-derrick made from oil well 2 inch and 1 ½ inch tubing. The collapsed derrick was carried on a 45-foot fishing boat. The core string was oil well tubing with a cap at the top on which to pound with an air hammer. The core barrel was stainless steel tubing, tipped with stellite for a cutting face and toothed to cut a vertical groove in the driven core. After pounding the core the string was hauled up through the derrick and passed to the boat where it was pumped out by air pressure.

A location was picked to core and the area was washed free of loose gravel and sand by air pressure until an area free of alluvium could be cored. The derrick was extended, lowered into place and anchored three ways into the sea floor using a small boat. The small boat then put a man with large air hammer onto a very small platform atop the derrick. The "drill string" with the core barrel attached was lowered through the derrick carefully orienting the “tooth" on the barrel by compass to known markers on shore. These markers were also used to triangulate the location of the coring. The core was then pounded (about 10 minutes, after several hours of preparation) and the barrel raised to the surface. The core was pumped from the barrel with air pressure on the boat.

This ponderous method got only a few cores each day, depending very much on weather. It came to grief when the derrick tipped over and could not be raised because it kept bumping the bottom of the fishing boat. This led to punching cores from the stern of the boat using the same method without the derrick. Over 150 cores were taken by this operation without much loss in orientation, recovery or dip information. The main problem was combating the swells and rise and fall at the stern of the boat. More than half the cores gave strike, dip, and foram information. Dips were reliable as long as the core could be driven vertically. Strikes were certainly in the right quadrant and probably within 25 degrees. Most coring was done in the Pico Formation with a small number from the harder Miocene.

Core Party, well unknown.

References Cited

8. Aurin, F. L., 1944, Members in Military and Government Service: Bull. Amer. Assoc. Petrol. Geol., Vol. 28, No. 1, pages 142-164.

9. Morley, Harold T., 1966, A History of the American Association of Petroleum Geologists The First 50 Years: Bull. Arner. Assoc. Petrol. Geol., Vol. 50, No. 4, page 735.

10. Aurin, F. L., 1942, Members of the AAPG in Military and Government Service: Bull. Arner. Assoc. Petrol. Geol., Vol. 26, No. 10, page 1678.

11. Morley, Harold T., 1966, A History of the American Association of Petroleum Geologists The First 50 Years: Bull. Amer. Assoc. Petrol. Geol., Vol. 50, No. 4, page 738.

Ed Fritz, Union; Dick Haines, Continental Oil Co. and "Frenchy" Dryer, Union, at S.E.P.M. Field Trip to Devils Den. by J.B. Anderson, Conoco, May 25, 1940.

"Frenchy" Dryer, U.S. Grant IV, and Jim Anderson.

Cartoon by Harold (Sully) Sullwold

Editor's note: The PPG Newsletter is starting a new series of articles featuring conversations with our Pacific Section AAPG members.

Conversation with a Pacific Section Geoscientist
Dan Steward

Interviewed by Amy L. Spaziani

I had the pleasure of interviewing Dan Steward this month, and it was a blast. I asked him to be my guinea pig for this article, which will hopefully be the first of a series in the Pacific Section newsletter. My vision of this article was that I would ask some questions that would spawn a conversation and hopefully go down a few rabbit holes. I realized immediately that I did not need to ask any questions, but just listen. As evidence in this interview, Dan has so much energy and excitement for geology, is a talented storyteller, and is incredibly humble. He excitedly jumped right in, talking about his early days in Taft and Bakersfield and a course that almost didn't happen, so is where this story begins.

Dan was born in Bakersfield, raised and went to school in Taft. He attended an Introduction to Geology course at Taft College taught by Maurice Fishburn. To ensure the class would clear the Dean's enrollment hurdle of 6 people, Dan cajoled two friends to sit in on the first night – the ruse worked, he absolutely loved the course. He went to CSU Bakersfield in early 1989 and declared his major in Geology. Like most of us, he was hooked on geology ever since. During a late-night discussion in petrology class, Rusty Riese told him and fellow student Kyle Mayborn they should go to graduate school because the industry needed them. This was the first time he had been told he might not get the job he wants with just a bachelor's degree. Dan worked at Gene Watson Construction in Taft and at Arco Exploration – both part time jobs, while completing his undergrad then pursuing his Master of Science under the direction of Jan Gillespie. Arco agreed to support his thesis with free well log reproductions and access to their 3D seismic data set covering the southwest portion of the Bakersfield Arch.

Towards the end of Dan's CSUB MS tenure, he was interviewed for an article in the Bakersfield Californian regarding a local student seeking entry to industry as a professional and how the Geology Departments' advancements could help this and similar efforts while bringing additional visibility to the program. Jim Dunlavey of Chevron saw the Californian article and sought to have Dan brought in for a job interview which led to his first full-time opportunity as a geologist. During his time with Chevron in Bakersfield, Dan worked on the remaining volumes at the offshore Point Arguello field in the Santa Barbara Channel, Kern River, and Chevron's southern Midway-Sunset properties: 26C Monarch, 2F, and 29D-30D. He also spent some time in the technology group, getting to experience a variety of projects around the San Joaquin basin and learning the basics of seismic interpretation under Bill Kempner's tutelage. Dan was also married in 1996 and defended his thesis the next year.

In 2002, Dan was transferred to New Orleans and the deepwater Gulf of Mexico (DWGOM). For anyone who has made such a move or the reverse, this was a tailspin. From a ton of well data and very little seismic, to all seismic and no well data was a challenge that Dan not only welcomed but fully embraced, as one might suspect from his personal email moniker "subsalt". He spent two years mapping subsalt plays in the eastern DWGOM, before transferring to Houston with Chevron.

Much of his time in Houston was spent in exploration and Dan found the lease sales particularly exciting. In 2006, he took a recruiter call that landed him a position with Noble Energy on their 6-person exploration team working the DWGOM sales and maturing prospects. In order to predict who Noble's lease sale competitors might be and what kind of valuations would be placed on a variety of prospects, Dan developed a thorough post-lease sale review procedure to aid the team and assist senior management in their annual preparations for the sales.

In the fall of 2010 Dan was promoted to exploration manager of Noble's west African assets in Equatorial Guinea and Cameroon. Two obligation wells at Cameroon drove the next two years of activity and drew the attention of Lukoil Overseas. Fueled by the post-Jubilee excitement in deepwater Ghana, Lukoil hired Dan as the director of their west African exploration group, leading both American and Russian teams. This fulfilled a long-term dream of Dan's, to work international locations, without moving his wife and four young daughters halfway across the world.

One might think this is quite a full career of accomplishments already, but true to his personality and energy level, Dan pursued an MBA at Rice University and completed the degree in 2018. After a brief stint at Total working the Mexican DWGOM, Dan started his own company, Iron Horse Energy, with the intent to acquire low-decline oil assets in California and/or Texas. In the summer of 2019, Amplify Energy found Dan through a former Chevron colleague and offered the position of VP of Operations for their Beta Offshore asset based in Long Beach. He moved the family to southern California with glee and they instantly felt at home. Dan was all in with the Beta asset, made numerous trips offshore, and learned and provided as much as possible in his first operational role. Dan left Amplify in December of 2023 and is currently looking for the next exciting opportunity.

If there was one message that stood out in my interview with Dan, it is the value of the geologic societies and community. At the behest of Bob Horton at CSUB, Dan attended the San Joaquin Geological Society (SJGS) meetings during his undergraduate, graduate, and working career in Bakersfield. Mike Clark, an adjunct advisor on Dan's thesis and Arco colleague, encouraged him to run for office at the SJGS. The networking from this activity made a huge impact on his career. He spoke fondly of mentors, such as Rusty and Mike, several people at Arco Exploration and Chevron; industry contacts like Terry Thompson who provided advice at exactly the right moment; and the professors at school: Jan, Bob Horton, Rob Negrini, and many others. The friendships he made during those days are credited for much of his success. Dan also regularly attended meetings at the New Orleans Geological Society and Houston Geological Society. He is currently very active in LA Basin Geological Society, serving as president, and the Pacific Section, as he has spearheaded the effort for the 100-year celebration of Pacific Section in LA, working closely with Rick Behl and Karla Tucker. Dan made this message very clear: support, attend, participate, and network at your local geological organizations and events. If Dan is an example, it is perhaps the best thing that you can do for your career and success.

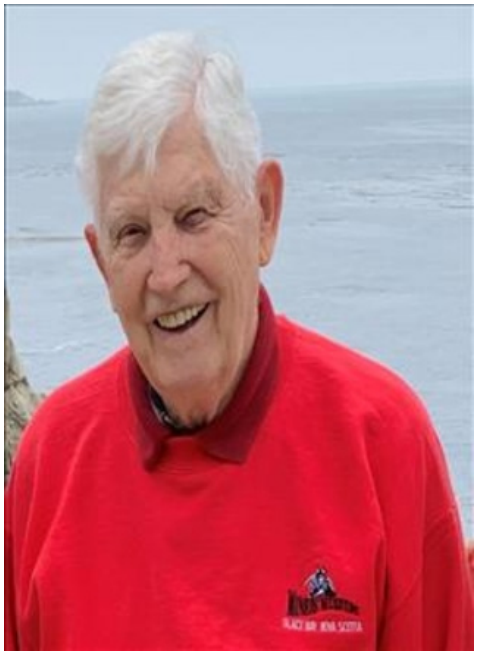
You can connect with Dan through his LinkedIn profile: Daniel C. Steward, his email subsalt@gmail.com, or at most LABGS meetings. It is my goal to bring interviews of our fellow Pacific Section members that are fun, informative and connect our community. If you have an idea of an interviewee or would like to be interviewed yourself, please let me know: amy.spaziani@gmail.com.

San Joaquin Geological Society
2024 Scholarship Winners

The Pacific Section AAPG congratulates the seven winners of SJGS 2024 Scholarships. Each student receives $1000, with the PSAARG and SJGS each providing half the scholarship amount. Recipients from CSU Bakersfield are Jennifer Rubalcaba, Samantha Taylor-Moore, Leonardo Menchaca, Alissa Montejo, and Ryan Tengelsen. Two recipients are from CSU Fresno: Morgan Hicks and Jean St. James. The CSUB students received their awards at the monthly meeting of the SJGS at the American Legion Hall in Bakersfield on April 9, 2024.

SJGS Scholarship winners for 2024. Pictured (left to right) are SJGS President Lisa Alpert, Jennifer Rubalcaba, Samantha Taylor-Moore, Leonardo Menchaca, Alissa Montejo, PS AAPG Scholarship Chair Cynthia Huggins, and Ryan Tengelsen.

Raymond Sullivan
October 27, 1934 – January 13, 2024
from the Northern California Geological Society Newsletter



NCGS stalwart Raymond Sullivan passed away on January 13, 2024, at the age of 89. Ray, as he was known by friends, family, and students alike, is survived by his loving wife Barbara of 61 years and his sons Morgan and Gareth. He was also the proud grandfather of Conor, Caitlin & Liam.

Ray was born in Ebbw Vale, a steel and coal town hidden away in the mountains of South Wales. He was one of nine children and worked hard to overcome the challenges he and his family faced. In his youth, Ray and his older brother, Herbert, roamed the surrounding hills and moorlands and became fascinated with the landscape around them. Ray's idea of studying geology came from a newspaper article on the subject and at the time he had no idea that one day three generations of Sullivans would end up studying geology. He received a B.Sc. in Geology from Sheffield University and a Ph.D. from the University of Glasgow in Scotland.

After university, Ray emigrated to Canada and spent his early years with Shell and met Barbara Brown on a sleigh ride in Edmonton, Alberta during the winter of 1961. They married the following year before setting off to California for Ray's new position at San Francisco State University. The happy couple were later blessed to welcome two sons, Morgan and Gareth, both of whom followed in their father’s footsteps by majoring in geology. Barbara continued to work in the travel industry while embracing university faculty associates and supporting Ray in his professional career, serving as field assistant, secretary, manuscript editor, adviser, and confidant.

Ray spent 40 years teaching geology and earth science at San Francisco State. During this time, he helped co-found the Department of Geology, was Associate Dean of Science, a Fellow of the California Academy of Sciences, and was awarded the university’s highest “Inspiring Teacher” award at least five times. He was an inspiration to his students and the public for well over 50 years. In the words of one of his students, “he achieved this by making geology come alive in lectures and relating the rocks to our very existence.”

Ray retired from the Department of Geosciences at San Francisco State University in 1997 but continued to teach part-time until 2002 to complete his 40 years. For the past 20 years, Ray and Barbara traveled widely and visited many interesting places including Easter Island, Fanning Island, Iceland, American Samoa, Midway Island, Devils Island, Beagle Channel, Patagonia, Amazon River, Russia, Ukraine, Oman, Egypt, Zimbabwe, South Africa and the country of his birth, Wales.

Not one to rest on his laurels during retirement, Ray continued to lead field trips for the Northern California Geological Society and other groups, publish papers, and conduct mapping and research in Contra Costa County. He was president of, and remained active in, NCGS, with the culmination of his efforts being the conception, recruiting of authors, editing and being the sine qua non of the recently published GSA Memoir 217, Regional Geology of Mount Diablo, California: Its Tectonic Evolution on the North America Plate Boundary.

Ray led field trips for the public in downtown San Francisco a number of times. For many years he led trips for teachers during Earth Science Week to the Black Diamond historical coal mining area and also in downtown San Francisco. He served on a multitude of professional society and consortium committees, chairing some, and led field trips to Black Diamond mines for petroleum company geologists. He served a term as delegate to the American Association of Petroleum Geologists House of Delegates and received AAPG's Lifetime Achievement and Exemplary Service awards as recognition of his outstanding contributions and support of higher education and educating the public. Ray will be remembered as someone who gave 100%. To Barbara, he gave his heart. To his sons, he gave advice and guidance. To his grandchildren, he gave stories and dreams to be fulfilled. To his friends, he gave friendship that knew no limits. He will be greatly missed.

BEST CORE SERVICES

BEST CORE SERVICES

where BETTER became BEST

We Supply Quality Data with Quality Serivce

111 LAKE STREET
BAKERSFIELD CA 93305

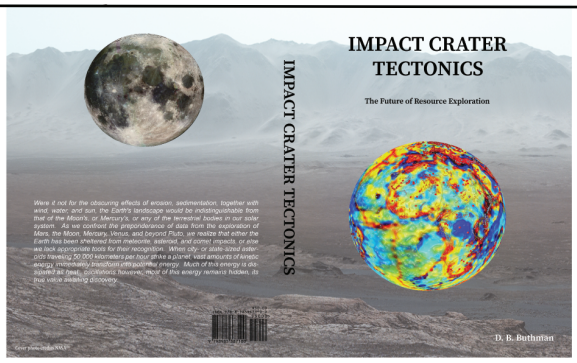
Bryan Bell: (661) 496-2654 Office: (661) 835-6001

Geolog

GEOLOGICAL LOGGING INC.
9229 Beatty Drive, Suite B
Sacramento, CA 95826
(916) 452-9570 Tel
(408) 307-4653 Cell
(916) 452-9573 Fax
david@geologinc.net

DAVID BURROUGHS
President

www.geologinc.net

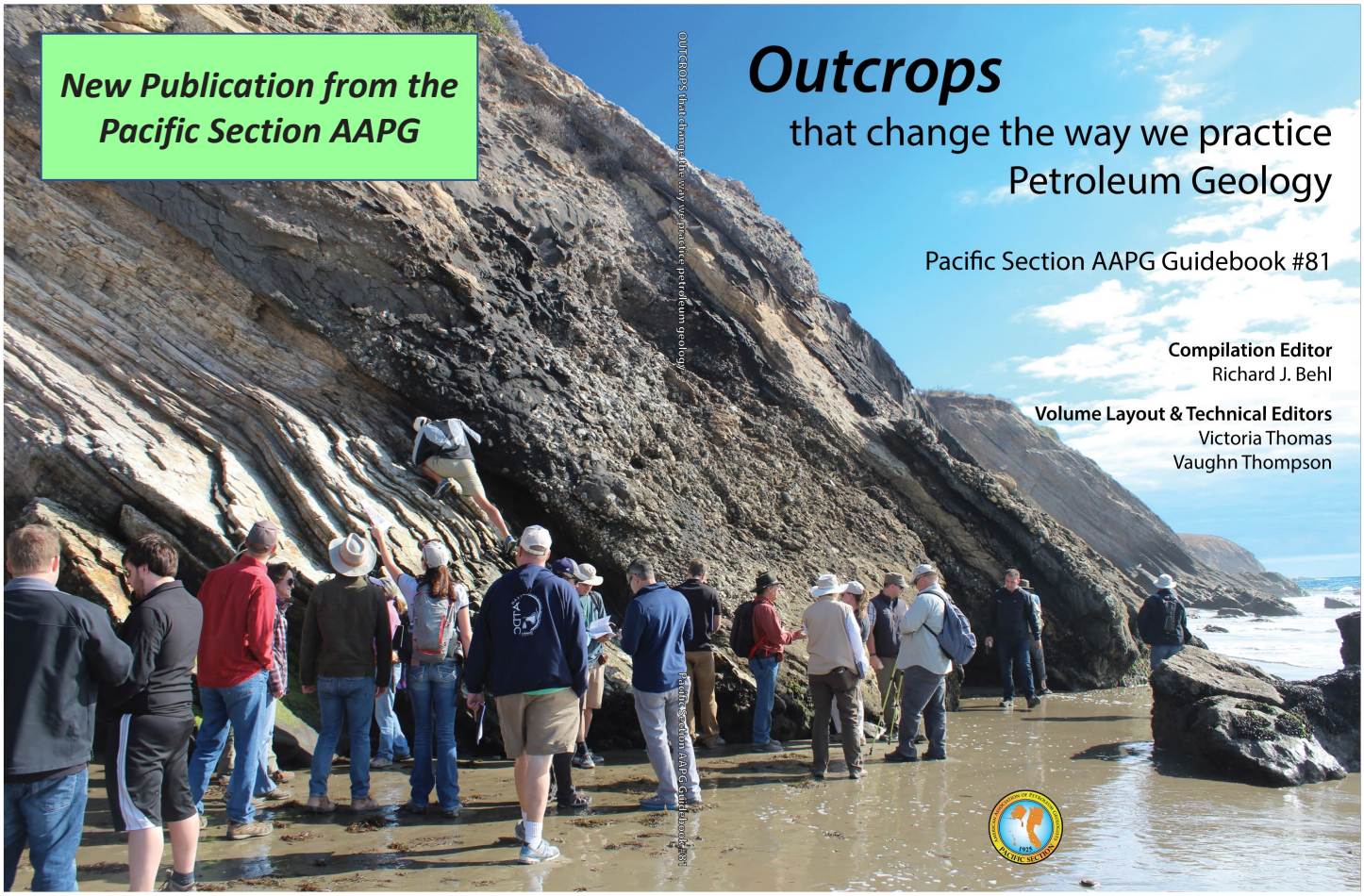


Impact Crater Tectonics

consists of field studies of impact craters, integrating potential fields with seismic, subsurface, and surface geology. The overwhelming correlation between impact craters and mineral resources shifts our paradigms away from plate tectonics, and towards the now more universally-accepted *impact crater tectonics.*

Full-color, 297-page, 8.5” x 11” perfect-bound book, with over 200 photos, graphs, and illustrations. The book can be ordered from either Amazon for $50.00 plus shipping and handling, or from the author at: ImpactCraterStudies.org.

by **David B. Buthman**



PS-AAPG Guidebook # 81

Outcrops that change the way we practice petroleum geology:

2020 Pacific Section AAPG/SEPM/SEG Conference

Guidebook #81 is available for purchase NOW
Cost: $36.00

PUBLICATIONS
PACIFIC SECTION AAPG
P. O. BOX 1072
BAKERSFIELD, CA 93302

Please include an additional $8.00 for S&H.
All orders must be prepaid.

PAYZONE INC.

Geological, Geophysical, and Petrophysical Consulting Services for the Petroleum Industry 661-387-1715

- Accurate, consistent fieldwide reservoir properties for modeling, OIP, and improved heat management in thermal projects
- Old E-Log interpretation
- Image log interpretation and integration with petrophysical analysis
- 2D/3D seismic interpretation, expertise in old 2D data
- "Mystery logs" and other difficult log problems

Our petrophysical models for siliceous shales and California sands are based on over 30 years of experience with these rocks, including core, log, and lithology data from every basin in the state

Deborah Olson, President
dmolson@payzoneinc.com
661-747-0375

Have a log question? Give us a call!

www.payzoneinc.com

Tom Howard, Image Analyst
tomh@payzoneinc.com
832-407-2862

Member Society News

Alaska Geological Society
www.alaskageology.org

P. O . Box 101288
Anchorage, AK 99510

Monthly meetings are usually held on the last Thursday of the month. Most meetings are hybrids, using Google Meet, and in person at the BP Energy Center. Doors open 11:00 am.

Next Meeting: Check the AGS website for information on the May meeting.

AGS Technical Conference
April 6, 2024, University of Alaska, Fairbanks
See this newsletter (page 19) for more information

President:	Monte Mabry	mmabry@blm.gov
President-Elect:	Ken Helmold	helmold@alaskan.com
Vice-President:	Patrick Boyle	boyle.patrick.ryan@gmail.com
Secretary:	Chris Clinkscales	christopher.clinkscales@hilcorp.com
Treasurer:	Brad King	brad.d.king@conocophillips.com
Past-President:	Sarah Frey	sking11311@gmail.com

Coast Geological Society
http://www.psaapg.info/cgs/index.html

P. O. Box 3055
Ventura, CA 93006

In-person meetings are the third Tuesday of the month at the Poinsettia Pavilion, 3451 Foothill Rd, Ventura, CA 93003

Next Meeting: Check the CGS website for information on the May meeting.

President:	John Williams	CoastGeologicalPresident@gmail.com
Past-President:	Renee Richards	
Vice President:	Bill Dinklage	CoastGeologicalVicePresident@gmail.com
Secretary:	Nina Minga	CoastGeologicalSecretary@gmail.com
Treasurer:	David Arellano	CoastGeologicalTreasurer@gmail.com
Membership chair:	Phil Kinney	CoastGeologicalMembership@gmail.com
Webmaster/Tech Support:	Eric Heaton	CoastGeologicalWebmaster@gmail.com

Los Angeles Basin Geological Society
www.labgs.org

Luncheon meetings have a new venue: Signal Hill Petroleum located at 2633 Cherry Ave, Signal HIll, CA (562-595-6440, Brady Barto, ext. 5233). Meetings are on the fourth Thursday of the month, from 11:30 am to 1 pm.

Check the website for information on the next talk.

President:	Dan Steward	daniel@ironhorsenergy.com
Vice President & Programs	Rick Behl	richard.behl@csulb.edu
Treasurer:	Francine Cason	fcason5@gmail.com
Secretary:	Joseph Landeros	landerosjd@gmail.com
Scholarships:	Karla Tucker	ktkr2@aol.com
Webmaster	Joseph Landeros	landerosjd@gmail.com

(Continued on next page)

Northern California Geological Society
www.ncgeolsoc.org

803 Orion #2
Hercules, CA 94547-1938

Meetings are at the Orinda Masonic Hall and online using Zoom on the fourth Wednesday of the month. Talks are 7 pm to 8:30 pm (social half-hour at 6:30 pm)

Next meeting: May 29, 2024
Speaker: Libby Ives, Jet Propulsion Laboratory (NASA/Caltech)
Topic: Sedimentary geology of the Jezero crater western fan asseen by NASA's Mars Perseverance rover

May 29, 2024
Speaker: Don Medwedeff, Consultant
Topic: Structure, Timing, and Western Extent of the Stockton Arch: Constraints on Neogene Strike-slip Fault Offset in the Diablo Range

President:	Jim O'Brient	j.obrient @ comcast.net
President-elect:	Phil Reed	philecreed@comcast.net
Past President:	Noelle Schoellkopf	NoellePrince @ sbcglobal.net
Treasurer:	Don Medwedeff	donmedwedeff@gmail.com
Recording Secretary:	OPEN	
Membership Chair:	Tom Barry	tomasbarry@aol.com
Newsletter Editor:	Mark Sorensen	msorensen@gilbaneco.com
Field Trip Coordinator:	Will Schweller	willschweller@yahoo.com
K-12 Program Co-Chairs:	OPEN	
Scholarships:	Phil Garbutt	plgarbutt@comcast.net

San Joaquin Geological Society
www.sanjoaquingeologicalsociety.org

P. O. Box 1056
Bakersfield, CA 93302

DINNER MEETINGS:
SJGS meetings are on the second Tuesday of the month at the American Legion Hall, 2020 H St Bakersfield, CA.

Check the web site for information about the next meeting.

President:	Lisa Alpert	LAAlpert@aeraenergy.com
Past President:	Jennifer Prosser	jprosser@envirotechteam.com
President-Elect:	Ron Foster	rlf@cornerstoneeng.com
Vice-President:	Martin Jimenez	martin.jimenez@conservation.ca.gov
Secretary:	Kari Hochstatter	khochstatter@gmail.com
Treasurer:	John Porter	John.porter@blackknightllc.com
Webmaster:	Ivan Aburto	Ivan.Aburto@crc.com
HOD Delegate	Cynthia Huggins	Cahuggins747@gmail.com