

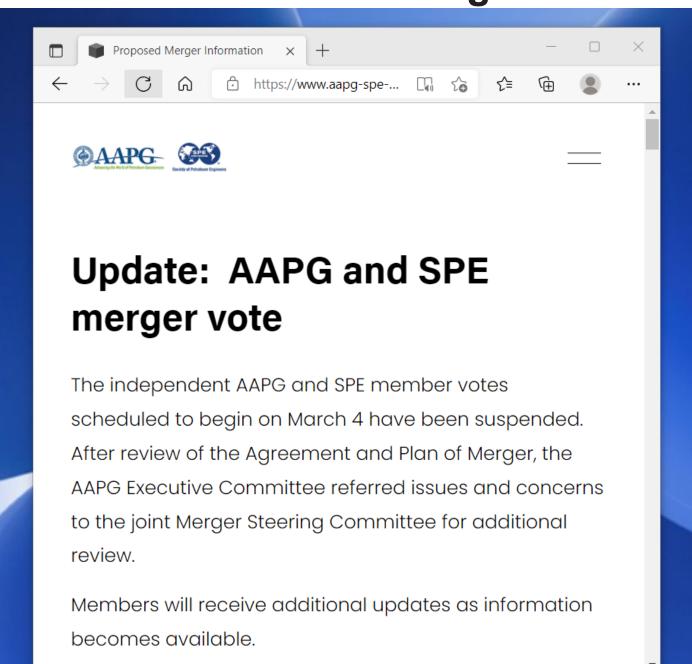
Pacific Petroleum Geology



Pacific Section • American Association of Petroleum Geologists

January and February 2022

Latest AAPG-SPE Merger News





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

since PSAAPG Miscellaneous Publications 41 and 43
Volume 1



Pacific Section AAPG • Digital Publication CD 7

Published by the Pacific Section American Association of Petroleum Geologists
P.O. Box 1072, Bakersfield, CA 93302
December 2020

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Dear PS-AAPG Members,

On behalf of the Pacific Section Executive Committee, we hope your holiday season was joyful and that you are blessed with a very happy and healthy 2022!

I would like to thank the Executive Committee and our community volunteers for all they have given the Pacific Section. The efforts of our volunteers continue to make the Pacific Section a leader in AAPG affairs (as we have been for almost 100 years). We all benefit from their tireless service and appreciate their precious gift of time.

The 2022 PS-AAPG convention committee is working to plan another great event. The timing is unclear, but announcements should be forthcoming. Whether the event will be inperson or not is still being debated, but we are promoting the idea of a hybrid, whereby we will have a similar on-line meeting to last year but integrating in-person fieldtrips. The committee is shorthanded and would deeply appreciate some extra volunteers! Please reach out to me or Becca Schempp if you have ideas, comments or would like to volunteer.

2021 was a rollercoaster year for our society, not only forcing us to begin redefining our future as an organization, but also in terms of member loss, volunteer fatigue and the uncertainties surrounding job security, local policies and COVID responses. The media-driven antioil agenda compounded with COVID, and underinvestment have created a perfect storm. Worldwide black-out events and energy scarcity are normal now. The Energy Information Administration (EIA) has raised demand growth and have turned bullish on oil. Short-term supply is up, but chronic underinvestment means longterm supply will be suppressed. We are bearing witness to a policy-created energy emergency, with oil prices rapidly approaching \$100.

While many of us may be celebrating this fact, expensive energy bares a terrible and lasting cost on the recovering world economy. Many under privileged families and nations are suffering the devastating



consequences of the compounded effects of underinvestment and COVID.

Amin Nasser, CEO of Saudi Aramco, recently warned: "Energy security, economic development and affordability imperatives are clearly not receiving enough attention. Until they are, and unless the glaring gaps in the transition strategy are fixed, the chaos will only intensify. So, the urgent new quest for our industry is to chart a course that will **continue to realistically** meet the world's rising energy needs – reliably, affordably and sustainably."

The recent dialogue we are witnessing reminds me of many aspects from one of my favorite books of all time, A State of Fear (2004). As the author, Dr. Michael Crichton (BA, MD Harvard) put it so elegantly: "Nothing is so firmly believed as that which is least known." He concludes his book saying: "that most environmental 'principles' (such as sustainable development or the precautionary principle) have the effect of preserving the economic advantages of the West and thus constitute modern imperialism toward the developing world. It is a nice way of saying, 'We got ours and we don't want you to get yours, because you'll cause too much pollution'."

I'm not convinced that is the whole truth, because

when Dr. Crichton wrote those words, the media monster had nowhere near the online reach they have now. This rhetoric has become a runaway train of misinformation and hype. One thing is clear, certain individuals and organizations (including nations) have much to gain through this chaos.

SPE-AAPG Merger Update

As most of you are aware, in May 2021, The American Association of Petroleum Geologists (AAPG) and the Society of Petroleum Engineers (SPE) announced an exploration of the benefits and opportunities of a merger creating the energy professionals' organization for the future. The idea was met with unanimous consent from the AAPG Executive Committee and the SPE Board of Directors.

The merger plan summary was sent out in early February 2022 (it is attached in this newsletter), and along with it, a notification to vote on the merger on March 4th, 2022*. A huge amount of work has gone into this merger, and the outcome is anything but certain. What a few months ago seemed an inevitability, now seems less so. I have a very hard time accepting the idea. I still feel like our science and profession is too profound to the planet for to be polluted and diluted with the modern "energy" rhetoric, and I will stand up for that. My personal feelings aside, we are in California, and we just might grow stronger and have a louder voice if we transformed and embraced a new way of business. By becoming "Energy Geoscientists" we may achieve this goal, but it carries the risk of Petroleum Workers being outnumbered and silenced.

A fellow AAPG member and well-known Professor, Alexei Milkov created an online poll for the merger (January 24, 2022). His results and related

*Note, during final editing of the newsletter, AAPG announced (2-17-2022) that the March 4th merger election has been **suspended**, stating: "After review of the Agreement and Plan of Merger, the AAPG Executive Committee referred issues and concerns to the joint Merger Steering Committee for additional review." https://www.aapg-spe-merger.org/

comments are worth reading (Alexei's LinkedIn page). For, up until this and many other online discussions, AAPG's membership were not fully engaged in the discussion. Alexei's poll indicated that 52% of those polled will vote "NO" on the merger between AAPG and SPE. The loudest concern being that the "voices of geoscientists in the organization heavily dominated by engineers (about 1 to 6) will be quiet. That's a given."

Most discussion I have read has been about the "business" side of things. And true, the model of AAPG may be outdated and incapable of surviving in a modern world, but we need to focus on the science. Being that so many of us hold that belief, I see a powerful Petroleum Group emerging in the future. The immense degree to which the entire globe relies on Oil and Gas is not well understood, perhaps even by Energy Scientists.

I urge all AAPG members in the Pacific Section to vote, because this will change the very nature of our society. The full voice of AAPG must be heard.

Pacific Section Rig Count and Observations

Currently, the California Rig Count is 8, down two from last month, despite record breaking oil price increases. After WTI's recent slip to the mid-60's, it has rapidly shot to \$95. Alaska has increased its rig count from six to eight in the same period. California is currently producing between 350,000 and 370,000 barrels of oil per day, and we consume roughly 1.8MM barrels of oil per day, almost 5 times what we produce.

In my last column I gave an overview of the graph in Figure 1. We highlighted a few high level observations and put CA's declining oil in its true context with a little known fact. That context is that a lack of investment in drilling is largely responsible for CA's decline in domestic production. Only part of the decline is the result of the natural decline of the currently producing wells. Years of anti-oil reporting and false rhetoric by our politicians, agency officials and environmental groups have misled investors and even local producers to believe in the unavoidable decline.

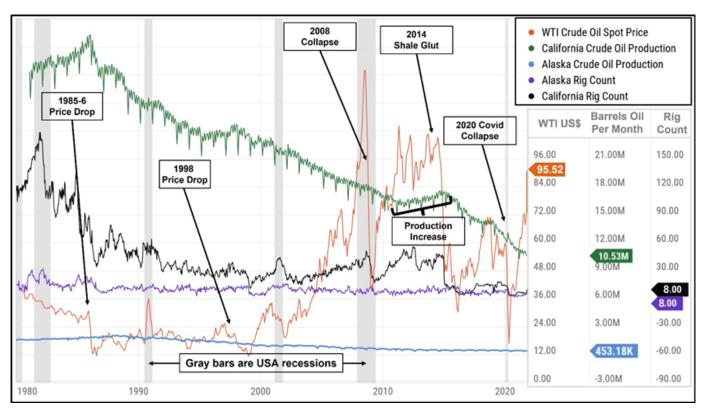


Figure 1: 1980-present rig Count for California and Alaska (other Pacific Section areas have no active rigs). Also included is WTI Crude spot price (US\$), California's and Alaska's Crude Production (Barrels of oil monthly). Source data: EIA. Compiled in Y-Charts.

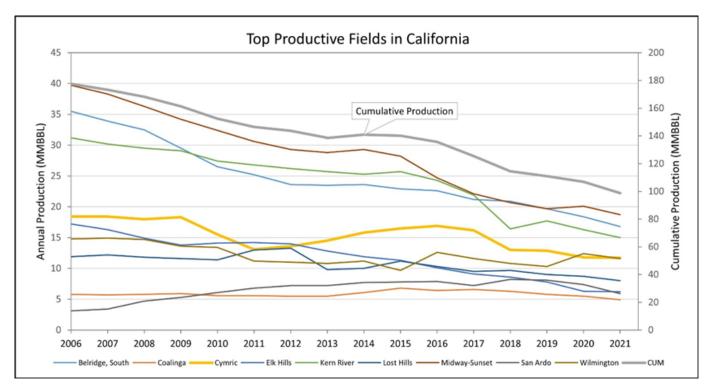


Figure 2: Annual production for California's nine largest oil fields (2006-2022). The data were compiled from CalGEM annual reports and the WellSTAR Data Dashboard.

For example, on page 7 of the 2019 (most recent published on 7-27-2021) Annual Report of the State Oil and Gas Supervisor, the following is written: "The decrease in oil production was due in large part to an ongoing natural decline in production. Statewide oil production has declined to levels not seen for the past 80 years. California oil production peaked in 1985 and continued its decline at an average of 2.2 percent per year. California offshore production decreased approximately 10.4 percent from 2018." No word is mentioned about the historically low level of drilling.

This statement is misleading and worrisome. As I mentioned in my last column, the fact is that a lack of investment and innovation is the reason our production is declining. The lack of investment and innovation is being driven by litigation and regulatory constraints that prohibit CalGEM from approving anything other than abandonments. On Figure 1, we pointed out the increased production from 2010-2014. During this period, CA added

almost 17,000 barrels of oil per day. Figure 2 depicts CA's production from its nine largest fields from 2006 to present (compiled from CalGEM annual reports and WellSTAR Data Dashboard). *Although this is a very rudimentary analysis of the data, I think it conveys the message sufficiently. During the period from 2010 to 2014, several of our largest fields either flattened their decline curves, or even increased their production. One company, Chevron, alone accounted for over one half the increased production in this period. If one were to extrapolate this production incline, and layer on fresh innovation and investment, it indicates a very powerful story. The story that emerges is the exact opposite of the current narration. Could CA become energy independent? Could we end or significantly decrease our dependance on foreign imports? I personally believe we could.

My warmest regards,

Vaughn G. Thompson

NOW AVAILABLE

Anomalies Pioneering Women in Petroleum Geology: 1917-2017

To be released April 1, 2017, *Anomalies* represents a deep foraging into the unrealized and near lost history of women that began in 1917 their 100 year journey as petroleum geologists.

66 Robbie Gries and her contributors have created a remarkable account of early women in petroleum geology. The book represents a "deep dive" into the lives, accomplishments, triumphs, and, even, terrors, of early women professionals. It displays impressive scholarship, and reflects four years' efforts to source histories of these largely forgotten women professionals.

An astounding network of women professionals, formed by need, strengthened by time, constituting an amazing support system. Robbie has done an amazing, multi-year research effort in uncovering hundreds of early petroleum geologists, active in many countries, whose early efforts are now recorded for our belated appreciation. A delightful, hopeful, sense of progress is conveyed by the book, as the intense survival stories of early women geologists, give way to a prideful modern acknowledgement of the importance of women petroleum geoscientists in our modern petroleum industry.

The book should be read by every petroleum geologist, geophysicist, and petroleum engineer; partly for the pleasure of the sprightly told adventures, partly for a sense of history, and, significantly, because it engenders a proper respect towards all women professionals, forging their unique way in a "man's world". Buy this book! It will renew your pride in being a petroleum geologist, and it will enlighten you on the struggles of our wonderful women associates as they followed their professional dreams. ? ?

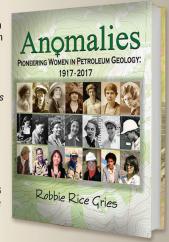
– Marlan Downey, Past President of AAPG, CEO Roxanna Petroleum

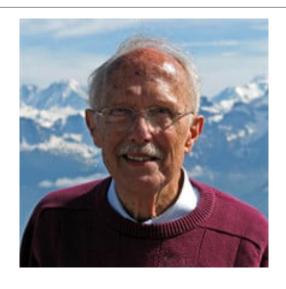
46 Anomalies celebrates the inspiring achievements of an intrepid group of pioneering women that have laid the groundwork for female geoscientists today. Robbie Gries provides an entertaining and informative narrative of 100 years of trailblazers that is enriched by excepts from diaries, letters and interviews. The women in these

pages were true scientific contributors and innovators at a time when women were just emerging into the growing field of petroleum geology. This is a must read for any historian of the oil patch, as it provides the only comprehensive record of the hidden history of these ground-breaking women.

 Allyson Anderson Book,
 Executive Director - American Geosciences Institute

Once released, the book can be ordered from the AAPG Store for \$50 plus shipping and handling. Please e-mail publications@ aapg.org expressing your interest and we will contact you as soon as the book is available. Don't want to wait? Visit the AAPG Center at the 2017 ACE meeting to purchase your copy.





Robert Sheppard Yeats March 30, 1931 - December 5, 2021

Robert S Yeats (Bob) age 90 died December 5, 2021 after battling Alzheimers. He was born in Miami, Florida on March 30, 1931 to Robert S. Yeats and Carolyn Elizabeth Rountree. In 1943 the family moved to Gainesville where Bob finished high school in 1948 and graduated from the University of Florida in 1952 with BA in geology. He was a member of the Pi Kappa Phi fraternity. He played classical piano, clarinet in the University of Florida band, and saxophone in a mambo jazz band. In December 1952, he married Lillian Eugenia (Jean) Bowie, and was commissioned second Lieutenant in the Army, spending his military service at Fort Eustis, Virginia, where he taught map reading and military intelligence.

He earned his PhD in Geology at the University of Washington, where he indulged his love of mountain climbing through a mapping thesis in the North Cascades. In 1958 he joined Shell Oil Company as an exploration geologist in the Los Angeles area. In 1967 he made the jump to the academic world, becoming a geology professor at Ohio University and launching research projects in southern California. His interest in earthquake geology was sparked by an earthquake in 1972 on a fault he had mapped in an oil field. In 1977, he returned to his beloved Western US as the chair of the Department of Geology at Oregon State University. His international reach extended as chair of an international group studying active faults worldwide, first with UNESCO and later with the International Lithosphere Project. Bob supervised 53 MS and PhD students during his academic career. After retirement, Bob served as Senior Consultant for Earth Consultants International. Bob was a founder of plate tectonics-driven earthquake geology research, and a leading expert on earthquake risk in southern California, Cascadia, the Himalaya, Japan, and New Zealand. His textbook "The Geology of Earthquakes" is considered the definitive text in the field. He followed it up with "Active Faults of the World," written in retirement. Over his 60-year career he authored hundreds of technical papers with students and fellow collaborators.

Bob was perhaps most impactful as a champion of outreach, writing "survivor" books for

the public and policy makers to help them understand the risk and take practical steps to prepare their communities. These include "Living with Earthquakes in the Pacific NW", "Living with Earthquakes in California" and most recently "Earthquake Time Bombs." His nickname was "Dr. Doom," and his legacy will be lives saved through awareness. Bob was well known and respected in the geological science community. He was a Geological Society of America Fellow and received the prestigious Halbouty Award from the American Association of Petroleum Geologists. In 2006, the Department of Geosciences at Oregon State University established the R.S. Yeats Professorship in Earthquake and Active Tectonics.

In 1991, Jean, his wife of 38 years, died of breast cancer. He met Angela Hayes in 1991, and they were married in 1993. During these golden years they lived in Paris, New Zealand, and traveled the world. They loved to hike, ride their bikes, spend time at the beach and especially loved time with their family enjoying their many grandchildren. Bob is survived by wife Angela Yeats, children and spouses: Bob and Gail Yeats, Ken and Carolyn Yeats, Dave and Meghan Yeats. Stephen Yeats, Sally and Chris Hale, stepchildren and spouses: Mark and Mary Hayes, Joanne and Johnny Smith, John and Kathleen Hayes, Katy Hayes, Robert and Missy Hayes, sister Margaret Rice and twentytwo grandchildren and seven great grandchildren. He is preceded in death by his parents and sister Carolyn Kuban.

A Celebration of Life will be held at 10:30 at First United Methodist Church, Corvallis, on January 8th, 2022.

Memorials may be given to the Geology Field Camp Program Fund through the Oregon State University Foundation, or the General Fund of the First United Methodist Church, Corvallis.

The family of Bob Yeats wishes to extend our sincere thanks to Dr. Shawn Foley and the staff of Philomath Family medicine, Caregiver Tabitha Pope of New Horizons, Willamette Springs Memory Care and Serenity Hospice.

McHenry Funeral Home is handling arrangements.

Prepared by Angela and Ken Yeats. Our appreciation to Craig Nicholson for forwarding to Vaughn Thompson for publication in the Pacific Petroleum Newsletter.



William E. Crain
August 27, 1929 - September 5, 2021
Resident of Pleasanton

William Edwin ("Bill") Crain of Pleasanton, CA passed away on September 5, 2021. Bill was born on August 27, 1929 and was the third of four children born to John and Hildur Crain in Duluth, Minnesota. He is survived by his wife of 68 years, Jean Grandmaison Crain and his seven children Lisa (Jim) Gruber of Jolliet, Montana; Laurie (Mike) Palmer of Alamo, CA; Brad (Chris) Crain of Whidbey Island, Washington; Janet (Mark) Quillin of San Ramon, CA, Jeanne (Bob) Pavao of Discovery Bay, CA; Cathleen Blatt of Clayton, CA and Dr. Chuck Crain of San Carlos, CA. He is also survived by his 12 grandchildren Casey, Clay and Celie Gruber, Brittany and Michael Palmer, Madison and Teague Quillin, Lindsay (Pavao) Terry and Kelsey (Pavao) McNamee, Sydney (Blatt) Cantley and Steven and Kayla Blatt. He is also survived by 9 great grandchildren and by his sister Pat Diesen of Duluth, MN, brothers-in-law Dan Grandmaison of Duluth, MN and Tom Grandmaison of Minneapolis, MN and many nieces and nephews.

Bill was a native of Duluth, Minnesota. He attended St. Clement's and Duluth Cathedral High School, achieved the rank of Eagle Scout and was active in football, boxing and ski jumping. Bill served in the US Air Force from 1947 through 1950 during which time he travelled extensively around the world and served as Crew Chief for the newly formed USAF Aerobatics Team, now known as the Thunderbirds.

Bill married the love of his life Jean, also a Duluth native, in 1953. He graduated from the University of Minnesota at Duluth with Bachelor's degrees in business, economics and geology where he also received a Master of Science degree in geology. Following his passion for geology, he joined Standard Oil Company (now Chevron) in 1957 as an exploration geologist. With their growing family, Bill and Jean lived in Montana, Louisiana, Alaska and California. Prior to their move to Pleasanton in 2013, they were long time residents of Blackhawk, CA. By the time of his retirement in 1994, Bill was on the Chevron Board of Directors and served as Vice President of Chevron Worldwide Exploration and Production.

Always committed to earth science education, Bill served as a director of the American Geosciences Institute Foundation, the San Francisco Exploratorium, and the National Oceanic Industries Association. He was chairman of the Stanford University Earth Sciences Advisory Board and a member of the American Association of Petroleum Geologists, the Society of Exploration Geologists and the World Affairs Council. Bill received numerous awards and accolades for his work in supporting secondary school earth science curricula.

Bill had many passions and interests including golf, skiing, boating and international travel in numerous countries with Jean. However, his greatest joy and source of pride were Jean, his children and grandchildren who adored him. Ever humble, Bill had a knack for connecting with people and bringing out the best in others. His family and friends are deeply saddened by his passing and forever grateful for the time they spent with this special man.

Visitation and Memorial Liturgy service to be held Tuesday, September 21, 2021 at 10:30 a.m. at Queen of Heaven Catholic Cemetery & Funeral Center, 1965 Reliez Valley Road, Lafayette, California. In lieu of flowers, the family asks that donations be sent to the American Geosciences Institute Foundation.

Originally published in the East Bay Times. Thank you John Randell for forwarding William's obituary for us to publish in the Pacific Petroleum Newsletter.



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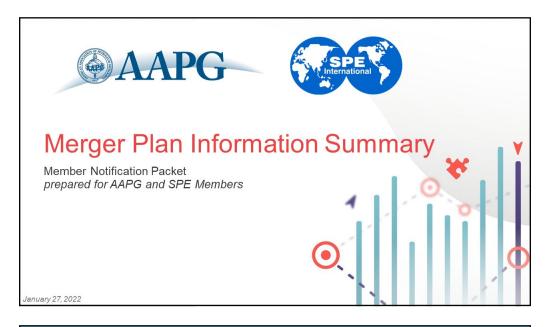
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AAPG-SPE Merger Information

Editor's Note: The AAPG-SPE merger vote, originally scheduled to begin March 4th, is suspended. As of late February, what is known about the planned merger is reprinted here, and includes (1) latest merger plan summary prepared by AAPG and SPE from late January, and (2) merger questions and answers from the AAPG web site. In addition, Paul Henshaw and I prepared notes from a SPE town hall in early January, which contains information about the new organization structure seen elsewhere in the merger documents.

(1) AAPG-SPE Joint Notification Merger Plan Information Summary



Merger Status Update

- Your opportunity to vote on the proposed AAPG-SPE Merger begins in 30 days.
- What do you need to do to prepare?
 - Ensure that your dues are paid
 - Verify that your email contact information with AAPG and/or SPE is up to date
 - Join us for the AAPG and SPE Joint Member Townhall meeting on February 7
 - Stay current by visiting aapg-spe-merger.org
- The complete merger plan will be linked with your ballot in 30 days.
- The following slides provide a summary of what you can expect in that plan.



Why Merge

AAPG and SPE are pursuing a merger to create the global petroleum professionals' organization of choice in response to an evolving energy sector and new market challenges



4

AAPG and SPE: Stronger Together

Merger of intellectual equals – honoring two strong legacies to position us for the future

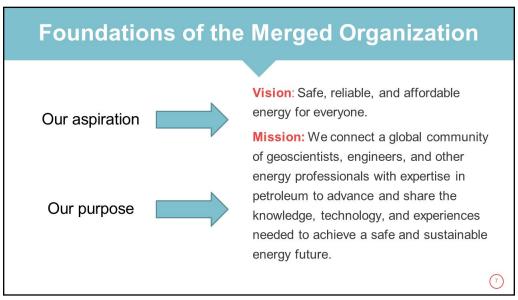
A larger global community of professionals pursuing career interests and opportunities Advance petroleum science and technology to increase leadership and influence in an evolving energy era

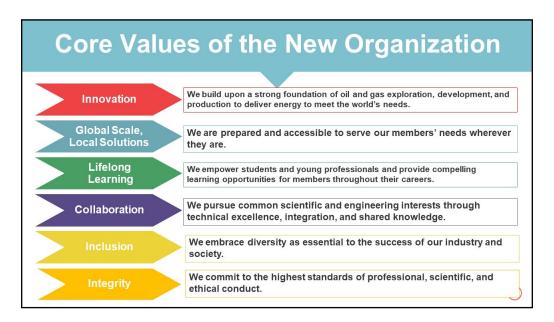
A more resilient and durable organization through combined financial and operational strength Access to existing offerings and greater benefits and resources for all members

Increased impact by uniting geoscientists and engineers to tackle our biggest challenges

5







New Organizational Structure

- Single non-profit 501(c)(3) entity provides business and tax advantages.
- Amended bylaws and governing documents to serve the combined organization.
- Updated brand responsive to current and future landscape.
- AAPG Foundation and SPE Foundation remain independent organizations.

New Organizational Structure, cont'd

- Seven geographic regions
 - Africa, Asia-Pacific, Europe, Latin America & Caribbean, Middle East & North Africa, North America, Russia & The Caspian.
- Local and technical components are essential to connect and provide community for all members
 - Direct conversations are ongoing to identify the best path for the combined organization to engage with local components, particularly those that are independent organizations, to mutual benefit.
 - A comprehensive collection of Technical Components determined by a member-led task force will focus
 on providing a robust, global community of subject matter experts, enabling knowledge-sharing,
 multi-disciplinary integration, and networking.



New Governance Structure

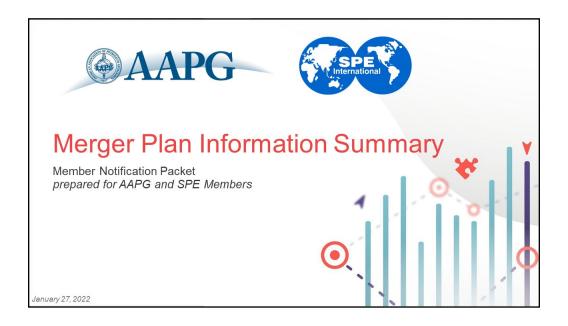
- Constituency-based board of directors representing regions and technical disciplines from AAPG and SPE.
 (24 Directors: 3 executive officers, 10 regional directors, 11 technical directors with 1 non-voting, ex-officio)
- Current members of the AAPG Executive Committee and the SPE Board of Directors complete their terms on the new board.
- A transition Executive Committee manages the organizational integration with a Board chair selected by simple majority vote of both the AAPG Executive Committee and SPE Board of Directors.
- Nominating Committee composed of 12-16 voting members; members will serve terms of 1-2 years
- Nominations solicited from the broad membership annually for open director positions and President-elect.
- New directors elected by the new Board to fill open positions beginning in 2023 and serve three-year terms. A single slate nomination process preserves representation of geoscientists and engineers.
- Standing Committees will be member-led, staff supported bodies responsible for advancing strategic goals and providing recommendations and planning for distinct programmatic areas.





Next Steps

- AAPG and SPE Joint Member Townhall Meeting (February 7).
- Finalizing merger plan and agreement for presentation to members with formal voting package.
- AAPG and SPE members will vote in independent elections during a 60-day voting period, expected to conclude in late April.



(2) AAPG-SPE Merger Frequently Asked Questions from the AAPG Merger website

Is it a merger or is it one organization being acquired by the other?

This is a merger of two organizations of equal strategic importance with long histories of mission driven service to members.

What are the benefits of a merger?

The merger would allow both organizations to position themselves for the future of energy, including mission, vision, branding, governance, and staffing. Multidisciplinary collaboration is the reality of the energy industry, so bringing geoscientists and engineers together under one roof makes sense and satisfies the concerns of many of our members and supporters. The combined organization will represent the largest one-stop professional organization for the energy industry, so we expect greater support from advertisers, exhibitors, and sponsors. While we expect significant operational synergies in a combined organization, the primary opportunity is to become the inclusive, multidisciplinary community of technically proficient engineers, geoscientists, information technologists, and other industry professionals dedicated to the ethical and sustainable development of the planet's energy and natural resources to assure reliable and affordable energy for all. The merging organizations have important attributes in common:

- Shared technical and professional interests in petroleum engineering and geoscience in an environment of relentless progress towards multidisciplinary teamwork in all aspects of oil and gas exploration and production, as exemplified through successful collaboration on Offshore Technology Conference (OTC), International Petroleum Technology Conference (IPTC), Unconventional Resources Technology Conference (URTeC) and Petroleum Resources Management System (PRMS).
- Global reach
- Substantial and complementary literature assets
- Significant and overlapping constituencies from corporate, academic, public, and government organizations, with potential to gain more through integrated and enhanced technical offerings and a shared vision of the future of energy
- Engagement in the ongoing energy transition, which will succeed through the expertise and creativity of engineers and geoscientists many employed by our companies and members of our organizations who understand energy, engineering, and the subsurface, and for whom innovation is second nature. Both SPE and AAPG have active programs related to the energy transition, sustainability, and ESG issues.

Will the merger dilute the focus on "core" domains in each organization?

AAPG and SPE have strong core programs that will continue and our support for our technical specialties cannot be diminished. In some cases, core programs such as PRMS already benefit from interdisciplinary approaches and we anticipate more opportunities such as this in the future. That said, as our industry evolves, we need to acknowledge that our mission includes helping engineers and geoscientists adapt as their professions change. Combined, the two organizations have over 150 years of experience effectively serving members on a foundation of petroleum geoscience and engineering. This is an important heritage and our leaders want to ensure we are well positioned to serve the next generations of engineers and geoscientists.

Where is the value for the AAPG and SPE members to be part of a larger organization?

A larger community would provide opportunities for members to make more contacts and increase their networks, deliver expanded access to best practices and peer-reviewed technical resources, and achieve scale to open business opportunities in important growth areas.

Why do it now when AAPG and SPE are going through a tough financial period?

Both organizations have had to adapt due to the pandemic, albeit in different ways, and are stable as we emerge from the pandemic. Merging the two organizations will make us stronger financially for the long term by diversifying our portfolio of programs and revenue streams. We recognize that this is a time of rapidly accelerating change that we can handle better together.

Can you successfully merge two stressed organizations?

There are many examples of successful mergers of companies and professional societies resulting in stronger organizations going forward. In this merger, two well-known organizations with complementary strengths and similar values and mission are actively preparing to equip their members to be successful in a rapidly evolving energy landscape. For example, the new organization can simplify governance and shore up sponsors by being responsive to their concerns about too many organizations with too many events constantly seeking financial support.

Some of the stresses currently impacting AAPG and SPE may subside once the pandemic has passed, but others such as the impact of the energy transition will not. The combined organization will be better positioned to meet the needs of our collective membership coming out of the pandemic by combining our resources. Additionally, as our industry evolves due to the energy transition, the merged organization will be better able to address industry-wide challenges impacting all petro-technical professionals.

What are the financial incentives for a merger?

There will clearly be operational savings from merging the two organizations as well as savings from rationalizing our meetings portfolios and other programs. We will also have a broader base of membership to which we can market the combined offerings of the two societies. Financial benefits

are important; however, the main drivers for the merger are to better serve the needs of the members and the industry supporters of both societies.

Why the rush?

There is no rush. The idea of this merger is not new, but timing is viewed by both organizations as optimal. COVID is a huge disruptor that has made us recognize that everything is changing. The energy transition has been disrupting our industry for a while. This is the ideal time to prepare and position ourselves for a rapidly evolving future in an organization that provides the tools for success at every career stage.

Why not just have a partnership instead of a merger?

Merging the two organizations creates opportunities to build a stronger organization that can more effectively address the challenges our industry faces today and into the future. A merger represents a true, sustained commitment to a new mission and vision and to the creation of culture and community that better serve members and other constituents. It also reflects the long-term trend toward integration of engineering and geoscience in exploration and production. A partnership could result in a withdrawal of commitment or retreat when difficulties arise.

What will be the name of the merged organization?

The name of the combined organization has not been developed but will be discussed as part of the next steps. There will be a thorough review of branding opportunities fitting for the largest global organization serving the energy industry.

What will be the mission of the new organization?

The mission of the combined organization will be established in ongoing discussions. It is expected to encompass the current missions of the two organizations, as well as to provide opportunities to grow the scope of the new organization to continue bringing value to members in the future.

What will happen if we don't merge?

Without a merger, AAPG and SPE risk their missions because of the ongoing loss of members, loss of financial support, and business challenges. A downturn in the stock market, another unexpected event like a pandemic, or a commodity market crash could jeopardize both organizations' longevity.

What will the dues be and how will they be structured?

The dues and dues structure have not been determined. Both organizations currently offer graduated dues based on income and student dues.

Will the membership classifications remain the same?

The membership classifications have not been determined yet.

Will the journals be merged? If not, will members receive both journals?

Plans for the journals will be developed in the coming months as we continue to work through several issues related to how the two organizations will be combined.

Will the new organization continue certification?

Certification plans will be determined in the coming months as we continue to work through several issues related to how the two organizations will be combined.

Are we creating a completely new governance structure?

The governance structure has not been decided but will be a new structure to serve a new organization. A "merger of equals" philosophy should result in fair representation in the new governance.

What happens to the AAPG and SPE Regions and Sections?

The geographical governance structure has not been decided, but the governance of both organizations includes local geographical units that must be maintained to ensure continued service to members. Regional and local groups are extremely important, and their autonomy is critical to delivering programs for their members.

Will the AAPG Divisions and SPE Technical Sections be maintained?

These types of groups are very important and will be a part of the new organization. While a specific organizational structure has not been developed, the new organization's communities will include the combined disciplines and interests of both AAPG and SPE. We expect the new organization to be fully equipped to support and expand these initiatives in service of the members.

Will the new organization have a Board and/or Executive Committee like the current SPE and AAPG structures? How about a House of Delegates or Advisory Council?

The governance of the combined organization has not been decided and will be a key part of the discussions that will take place over the next several months. Both organizations recognize that a nimble governance structure is essential to serving members in a rapidly changing energy landscape.

Which current programs will be retained/discontinued?

Programs will be evaluated to determine whether they can be combined or should remain as they are. Some complementary programs, like Wikis, should be easy to combine. Other programs will be evaluated on a case by case basis along timelines scaled to the degree of difficulty in integration.

Where will the new organization be headquartered?

We will review all office locations and consider which one is best suited for the needs of the

combined organization, knowing that we have accomplished a great deal virtually throughout the pandemic. Our expectation is that in the US the new organization will have offices in Dallas, Tulsa, and Houston, with additional offices around the world. The senior staff executives are likely to be dispersed among several offices around the world so there may not be an official headquarters location.

What will be the relationship with the SPE and AAPG Foundations?

Although this has not been discussed yet, it is likely that both the AAPG Foundation and the SPE Foundation will continue to operate as separate 501c3 organizations.

How would the merger affect SPE's relationship with AIME and its sister societies as well as AAPG's relationship with AGI and its sister societies?

The new, combined organization will continue to be a part of AIME, and nothing will change with this relationship. Other AIME member societies have had similar mergers in the past without impacting their relationship with AIME. The new organization will also continue to remain a member of AGI and retain AAPG's existing sister society relationships.

How will the AAPG and SPE's Annual Conferences be affected?

At this stage, the annual conferences will not be affected. We anticipate that the new organization will include the combined membership in a larger annual meeting. AAPG has entered into an agreement to conduct its annual meeting jointly with SEG, so we anticipate that the new annual meeting could include all the memberships of the three existing organizations, pending agreement with SEG.

How is the AAPG agreement to hold joint conferences with the Society of Exploration Geophysicists (SEG) affected?

There is no immediate change to AAPG's relationship with SEG regarding the joint annual meeting and expanding opportunities to showcase the value of applied geosciences in the energy sector and beyond. It is a matter of scale and serving the applied geosciences market together with SEG will provide both new commercial opportunities and operational efficiencies. The new organization will continue this trend with the added benefit of engaging the engineering community.

Some Key Points from the SPE Town Hall, January 6, 2022

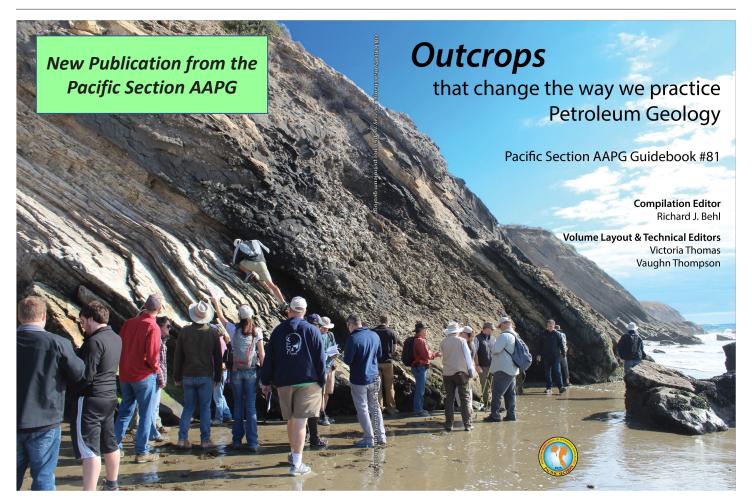
as recorded by Paul Henshaw and Tony Reid

Points of discussion during the Town Hall included some aspects of the merger that have not been discussed in the AAPG-SPE merger web site:

- The proposed governing structure of the new organization will be based on SPE's current organization. The Board of Directors will continue a world-wide focus. Five new Technical Directors will be added, representing AAPG's current technical divisions plus some new ones, such as geothermal and CO2 sequestration, that will reflect the future of the energy industry.
- In the future, there will not be a quota of geologists or engineers on the Board of Directors

Other points discussed appear consistent with the merger site, including:

- There will be a new name that will reflect the MISSION of the new organization. The new name will not be decided by the new Board of Directors, but rather will go to the membership for approval.
- There was lots of discussion about committees, recognizing that the new organization will be able to draw in spectrum of engineers and earth scientists. They recognize that Academia also needs to open more in the cross training of technical folks (Paul thought of his former Petroleum Geology class taught at UCB with engineers, and others joining the class of geology and geophysics students).
- SPE has been talking with SEG and others, and some may join the new organization.
- Current breadth of types of membership will be honored, and many currently already belong to both organizations.
- Transition of AAPG Sections to the new organization was not really covered. "Some will join, some will remain independent," was the comment from the SPE Town Hall coordinators.



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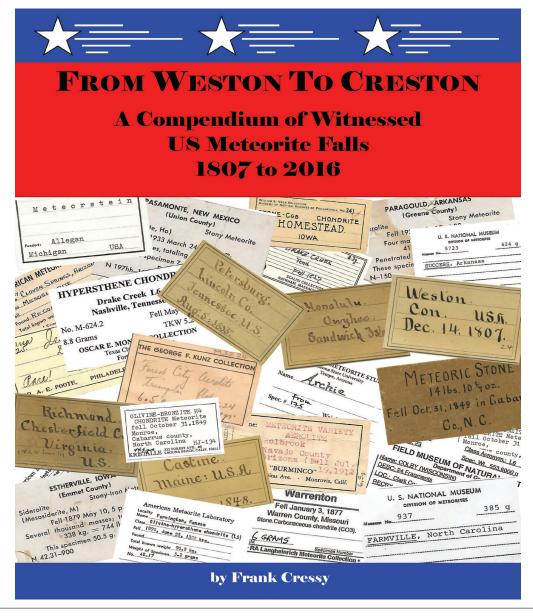
New Publication

"FROM WESTON TO CRESTON – A Compendium of Witnessed US Meteorite Falls – 1807 to 2016"

by Frank Cressy

The violent display of blazing light and explosive sounds ending with meteorites crashing to the ground is an unforgettable event to those who witness it firsthand. This book summarizes the fall histories of nearly 170 witnessed meteorite falls that have occurred in the United States since the first documented fall at Weston, Connecticut in 1807. It is written not only for the collector of these rare objects, but also for those interested in the history and the growth of the branch of science known as Meteoritics. The accounts of the fall phenomena and recoveries associated with these extraordinary events are the focus of the book. However, the book is more. The reader will learn about those individuals responsible for the growth of the science and their contributions, together with interesting facts and coincidences about these visitors from space; 257 pages with over 300 color photos plus maps, figures and illustrations.

Soft Cover books \$36.00; for ordering, contact: fcressy@prodigy.net



Update on Thomas E. Hopps Memorial Grant:

AAPG Foundation now accepting donations: https://donate.aapg.org/Core/eDonation.aspx/ Select Grants-in-aid Fund from Primary Fund Dropdown and select Thomas E. Hopps Memorial Grant in Sub Fund Dropdown Please contact Vaughn G. Thompson for additional information

Reprinted from the AAPG Explorer

Announcing the Thomas E. Hopps Memorial Grant

AAPG Foundation Team, March 2021

Thomas E. Hopps was a lifelong Californian who loved geology, loved working the Ventura Basin and other complex state structures and loved, especially, doing what he could to help others.

That help was often displayed in the way he shared his geologic knowledge and insights with teams on successful discoveries. Or in the way he advised and shared that same experience with people who wanted to make discoveries.

It was there in his helping students and young geologists as a mentor, or as a field trip leader, or as a passionate volunteer for committees throughout the Pacific Section.

Or as a philanthropist – a generous attribute that he willingly imparted with numerous charitable organizations.

And now that legacy of helping others is about to add a new chapter: A new AAPG Foundation Named Grant-in-Aid is being funded in his name.

The Thomas E. Hopps Memorial Grant, initiated by his wife, Lydia Hopps, and his sons, Benjamin and Daniel, will be a memorial tribute to Hopps intended specifically for students in the AAPG Pacific Section.

The Foundation's Grants-in-Aid provides financial assistance to graduate students whose thesis research has application to the search for and development of petroleum and energy-mineral resources, and/or to related environmental geology issues.

Grants ranging from \$500 to \$3,000 are awarded annually to cover expenses directly related to the student's thesis work, such as field work or laboratory analyses. The grants are based on merit, financial needs and, in the case of the Hopps Grant, a specific connection to the Pacific Section.

Hopps' Legacy

Tom Hopps was an accomplished explorationist who loved the thrill of drilling and discovering oil – and whose ties to AAPG started early in his career. He joined AAPG in 1967 as a geology student at Cal State Long Beach, during which time he worked for Signal Hill Oil and Gas.

His first job after graduation was as a field geologist for the Burlington Northern Railroad in Montana.

His life and career took a significant turn in 1971 – he married Lydia, a union that was celebrated for their entire life together, and together they moved to Ventura, Calif., where he began working for Argo Petroleum, creating the foundations for an exhilarating career in exploration.

With Argo he started building a geologic knowledge and expertise with basins throughout California, and in 1979 he launched his own consulting business – the first step toward he and Lydia forming Rancho Energy Consultants in 1982.

With Rancho Hopps became known as the "resident geological expert" of the Ventura Basin, producing maps, cross sections and interpretations that are still considered quintessential foundations for the area.

His most significant contribution then was the Ventura Basin Study, a relevant, data-rich document of historical importance.



His sharing of geologic expertise continued throughout his entire career through a prolific list of technical articles and basin studies in a variety of scientific journals.

But even as his career became increasingly successful, Hopps found time to be active in local and Section geological activities, serving in leadership roles (including president) for both the Coast Geological Society and AAPG's Pacific Section.

In 2000 he was awarded the Pacific Section's Honorary Life Membership award. To the end, Tom was an oil man and was planning delineation and development wells on his most recent successful discovery in the San Joaquin Basin. He was nearing completion of a co-authored publication on the Santa Barbara Channel when he passed in April 2020.

A memorial written last year for the Pacific Petroleum Geology Newsletter by AAPG Member Vaughn Thompson remembered him "kind-hearted and generous ... Those whom he touched are lucky to have his bright spirit, forever running through him.

"He will be remembered by all those who will benefit from his legacy."

Preserving His Legacy

Contributing to the AAPG Foundation's Thomas E. Hopps Named Grant – and helping to ensure that his legacy lives on in the careers of student who share his love of geology – is an easy process.

One option: Simply go to the AAPG website, at Foundation.AAPG.org/Grants-in-Aid-Program.

Another way: Send an email to gia@aapg.org or to dkeim@aapg.org. Or call Diane Keim, AAPG administrative coordinator, at (918) 560-2644.

Either way, your gift will help geology students far into the future with the chance to pursue their geoscience dreams in the name of one who loved to help others. And helping others is something Thomas Hopps would have liked.

AAPG Editor's note: Vaughn G. Thompson provided material for this report.

Member Society News

Alaska Geological Society www.alaskageology.org

P. O . Box 101288 Anchorage, AK 99510

Virtual Google monthly meeting are held at 11:45 am.

Mar. 17, 2022: Edward A. Duncan, Duncan Petroleum Advisors, LLC, Integrated Seismic Stratigraphic, Geochemical Volatiles Analysis and Petrophysical Quantification of a Brookian Foredeep, North Alaska Campanian Margin Multi-Billion Barrel "Super Trap"

President: Laura Gregersen president@alaskageology.org

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Vice-President: Ben Rickards
Cognetors: Heather Boot

Secretary: Heather Beat Heather.a.beat@gmail.com
Treasurer: Corey Ramstad cramstad@hilcorp.com

Past-President: Andy Dewhurst Andrew.Dewhurst@conocophillips.com

Coast Geological SocietyP. O. Box 3055www.coastgeologicalsociety.orgVentura, CA 93006

In-person meeting may begin in January 2022. Check the website for details. Meetings are the third Tuesday of the month and start at 6 pm.

Check the website for information on the next talk.

President: Renee Richards president@coastgeologicalsociety.org vicepresident@coastgeologicalsociety.org Vice President: Jerry Nichols Secretary: Justin Brochert secretary@coastgeologicalsociety.org Blake Foreshee treasurer@coastgeologicalsociety.org Treasurer: membership@coastgeologicalsociety.org Membership chair: Eric Heaton webmaster@coastgeologicalsociety.org Webmaster/Tech Support: John Abeid Eiko Kitao scholarship@coastgeologicalsociety.org Scholarship Logistics: David Arellano logistics@coastgeologicalsociety.org

Los Angeles Basin Geological Society

www.labgs.org

Virtual meetings continue at 12:00 noon the fourth Thursday of the month. Go to the LABGS web site for the link to join the meeting.

Check the website for information on the next talk.

President: Scott Prior figmo7@gte.net

Vice President Nate Busch NBusch@marathonpetroleum.com

Treasurer: Francine Cason fcason@gmail.com
Secretary: Joseph Landeros landerosjd@gmail.com

Scholarships: Karla Tucker ktkr2@aol.com

Webmaster Joseph Landeros landerosjd@gmail.com
Past-President: Bert Vogler hvogler@kleinfelder.com

(Continued on next page)

Northern California Geological Society

www.ncgeolsoc.org

803 Orion #2

Hercules, CA 94547-1938

Virtual meetings held via ZOOM at 6:30 pm on the fourth Wednesday of the month. Go to ncgeolsoc.org for more information.

March 30, 2022: Dr. Nicholas Swanson-Hysell, UC Berkeley, Stratigraphic Studies and Paleomagnetism (Details TBD)

April 27, 2022: Kim Jupiter, University of Victoria, CA, Seabed Mining

May 25, 2022: Dr. Alex Filippenko, U.C. Berkeley, A New Surprise in the Accelerating Expansion of the

Universe

June 29, 2022: Dr. George Stanley, University of Montana Paleontology Center, Mass Extinctions

President: Noelle Schoellkopf

President-elect: Jim O'Brient

Past President: Tom MacKinnon tom.mackinnon@comcast.net Don Medwedeff donmedwedeff@gmail.com Treasurer: steve.self1815@gmail.com Recording Secretary: Steve Self Membership Chair: Tom Barry tomasbarry@aol.com Newsletter Editor: Mark Sorensen msorensen@gilbaneco.com Will Schweller willschweller@yahoo.com Field Trip Coordinator: K-12 Program Co-Chairs: Paul Henshaw drphenshaw@comcast.net K-12 Program Co-Chairs: Pamela Polite Fisco pampolite@gmail.com Scholarships: Phil Garbutt plgarbutt@comcast.net

Program Director: Jim O'Brient

Website Editor: Andrew Alden geology @ andrewalden.com

Northwest Energy Association www.nwenergy.us

Co-Treasurer

Secretary

P. O. Box 6679 Portland, OR 97228 Contact: Jim Jackson or John Armentrout

NoellePrince @ sbcglobal.net

No activities are planned at this time. Check the website for the latest information.

President Chris May c.law.may@gmail.com

Vice-President Steve Pappajohn
Treasurer Barb Portwood

Barb Portwood bbportwood@gmail.com
Jim Jackson jackson.js@comcast.net
Clark Niewendorp clark.niewendorp@state.or.us

Sacramento Petroleum Association

P. O. Box 1844 Folsom, CA 95630 Contact: Pam Ceccarelli 916-439-0400

As of October 2021, in-person meeting have resumed at the Club Pheasant in West Sacramento. Meetings are held at noon on the third Wednesday of the month.

President: Jerry Reedy JWR5532@aol.com
Vice-President: Scott Hector Scott.Hector@gmail.com
Secretary Derek Jones djones@gasbiz.com
Editor/Treasurer Pam Ceccarelli pc626@comcast.net

(Continued on next page)

San Joaquin Geological Society www.sanjoaquingeologicalsociety.org

P. O. Box 1056 Bakersfield, CA 93302 Contact: Mark Korte-Nahabedian marknahabedian@gmail.com

In person monthly meeting have resumed. Meetings are on the second Tuesday of the month at 6:30 pm at the American Legion Hall, 2020 H Street, Bakersfield.

March 8, 2022: Greg Bartow, Water Infrastructure Advisor, California State Parks, Regional Geology of Mount Diablo, California: Its Tectonic Evolution on the North America Plate Boundary. Highlights from the new Geological Society of America Memoir.

President: Jeff Kimber Jeff.kimber@conservation.ca.gov

Past President: Maia Davis
President-Elect: Jennifer Prosser

Vice-President: Tom Howard

Secretary: Mark Korte-Nahabedian

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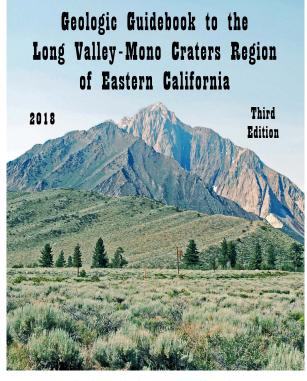
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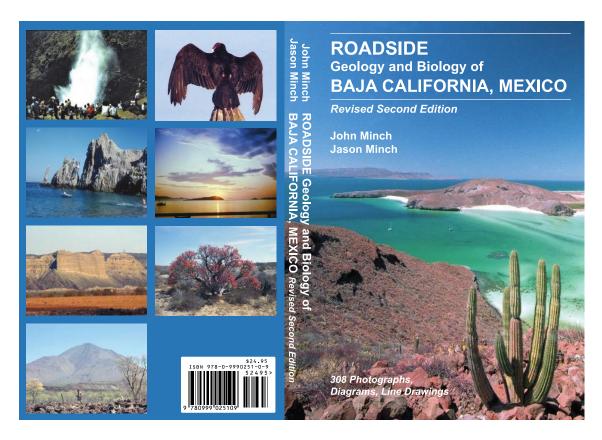
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The PSAAPG Newsletter is always looking to highlight its members' insights and expertise.

Be a part of the bi-monthly newsletter by sending in your technical articles to:

editor@psaapg.org

Articles for the newsletter should be no more than 7 pages in total. Any figures or images (graphics, photos, and scans) must be at least 300 dpi resolution. Scanned photos, illustrations (line art) should preferably be submitted as a .tif, .gif, or .bmp; .jpeg format and should include titles and captions.



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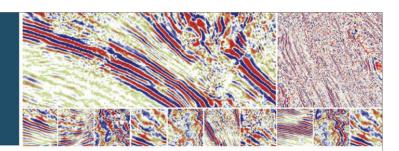
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