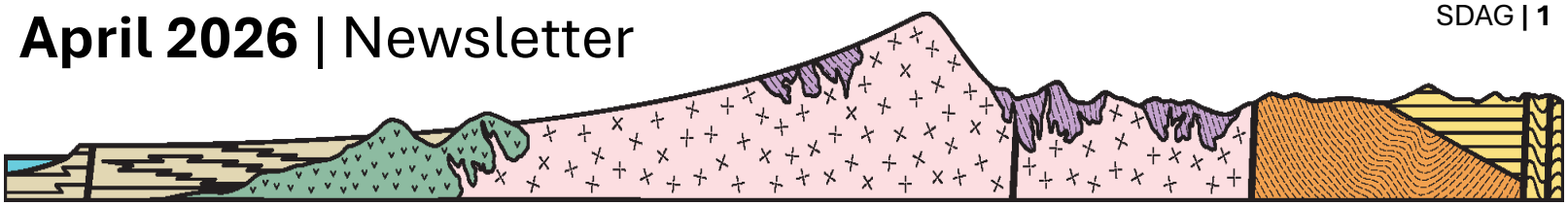
April 2026 | Newsletter



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SDAG Announcements

SDAG MEETING ANNOUNCEMENT

Wednesday, April 15th, 2026

6:00 pm - Social Hour | 7:00 pm - Dinner | 8:00 pm – Program

LOCATION:

Sunbelt Publications
664 Marsat Court, Suite A
Chula Vista, CA 91911

STUDENT SPEAKERS:

Jennifer Morton: *"Ground-truth Studies of the La Nacion Fault Zone, San Diego, California"*

CiCi Jobe: *"From Park to Garden: Collaborative Soil Testing to Support Food Security in Urban San Diego."*

Hannah Lissner: *"Assessing the Metals Variability, Clay Mineralogy, and Morphology of San Salvador Island Paleosoils"*

DINNER: Pizza, Salad, and Desert, by San Diego Mobile Pizza

COST: Member $55.00 | Non-Member $65.00 | Student $25.00

RESERVATIONS:
Make & Pay your reservation online through the SDAG website, before **6PM FRIDAY, April 10th**

Please note, all meeting reservations require online pre-payment due to venue costs, venue contracts, and loss of money due to no shows. Refunds cannot be processed after the registration deadline.

Click Here! For Directions

Click Here! For Reservations

Meet Our | Speakers & Topics

Jen Morton is licensed Professional Geologist working as a project manager with SCS Engineers. Jen has spent her career conducting environmental assessments for all types of commercial properties throughout California. From initial evaluations, to soil, groundwater, and soil vapor sampling, to site cleanups and collaborating with regulatory agencies, Jen has been involved with every stage of working on contaminated properties and has been successful in achieving regulatory case closure for a number of sites in San Diego, Orange, and Los Angeles Counties. In 2022 Jen was recognized as one of the Top 50 Women of Influence in Engineering for 2022 by the San Diego Business Journal. Jen is an active member of the San Diego Chapter of Commercial Real Estate Women, serving on their Education and Programs committee.

Jen holds a Bachelor's Degree in Earth Sciences from the University of California, San Diego. An active member of the San Diego Association of Geologists, Jen was President of the association in 2015 and is a core member of their Publications Committee. Jen was the editor of the book Coast to Cactus, Geology and Tectonics, San Diego to Salton Trough. Jen has been an adjunct instructor of Geology and Oceanography at Palomar College in San Marcos, California, and is currently pursuing a Master's degree in Geology at San Diego State University.

While her professional career has been focused on environmental geology and contaminated properties, she continues study other aspects of geology for fun. Currently, Jen is working on a compilation of geology hikes for a new SDAG guidebook and spent the pandemic going on geology excursions for the publication. On any given weekend Jen can be found on the local hiking trails in San Diego, excitedly observing the rocks and explaining the local geology to friends.

JENNIFER MORTON, PG – SDSU

ABSTRACT:

"Ground-truth Studies of the La Nacion Fault Zone, San Diego, California."

The La Nacion fault zone (LNFZ) is comprised of north-south trending faults located in the eastern portion of the City of San Diego, California. The faults are primarily dip-slip and are considered potentially active based on offset Pleistocene-age terrace deposits. The LNFZ is considered the eastern-most extent of the Rose Canyon fault (RCF) system, and as such, is critical to understanding the geometry and movement of the larger San Diego region fault systems. Additionally, the LNFZ may hold clues about how the RCF interacts with other faults to the south. Due to the urban environment, studying the fault has been difficult because development has obscured many areas where the fault may be present. Recent research using digital elevation models created using 1953 aerial photographs provided a new way of looking at the fault zone and suggested that movement is more recent and that the fault zone is more extensive than previous observations suggested. To gain a better understanding of the LNFZ, we used a combination of digital observations and field methods. An ArcGIS project was created to compile mapped faults, LiDAR imagery, and geologic maps. We georeferenced 1928 aerial photographs and geotechnical maps showing fault locations based on trenching. We then used these features to select several locations to conduct field research, including geologic observations and geophysical surveys. More research is needed to refine LNFZ activity and interactions with other regional faults.

Meet Our | Speakers & Topics

I am a Senior Environmental Science Major and Geographical Information Systems minor at the University of San Diego. I am the GIS teaching assistant and work for the Office of Sustainability on-campus. In addition, I am Co-President of USD's Chapter of the Association of Environmental Professionals and am a member of Pi Epsilon, the national honors society for environmental science.

In the fall, I plan to attend San Jose State University to pursue a masters in Geology, looking specifically at the mineral spring composition of Henry Coe State Park under the advisor Dr. Nate Bogie.

CICI JOBE - USD

ABSTRACT:

"From Park to Garden: Collaborative Soil Testing to Support Food Security in Urban San Diego."

As the effects of climate change sacrifice more land each year, food insecurity is becoming an increasingly pressing issue. Rising popularity in community gardens has provided a pathway to increasing food security. In this student and citizen science based research, city-managed park soils within highly urbanized food deserts in San Diego, CA were assessed for either their current or anticipated use as a community garden.

One current community garden, co-located to the University of San Diego (USD) community, cited concerns of poor soil quality, including ponding, compaction, and limited nutrient availability within the resident soil of the former park space. Previous soil testing of the native soil was limited, however, collaborative opportunities between USD and community partners have allowed for additional soil analysis to help community gardeners tackle these site-specific concerns. Bulk soils were collected from the surface (0-5 cm) and subsurface (>25 cm) and intact soils cores (0-12 cm) were collected from native in-ground soils and bulk surface soils were collected from within raised beds. To assess soil quality, acidity, salinity, particle size distribution, macronutrient composition, organic matter content, and labile carbon concentrations were measured. Metals were also analyzed via X-ray fluorescence and verified through acid digestions followed by analysis using inductively-coupled optical emission spectroscopy. The findings of this testing were consolidated into an accessible report to allow garden managers to better improve overall soil health. This community-based free soil testing service provides an opportunity for collaboration between the university and local community partners, one that could not exist under independent efforts.

Meet Our | Speakers & Topics

I'm Hannah Lissner, I have a bachelor of science in Environmental and Ocean Science and I am currently a candidate for a masters of science from the University of San Diego. My masters thesis is focused on investigating paleosols found on San Salvador Island located in The Bahamas. I began this research alongside my now advisor, Eric Cathcart, in 2023 as an undergraduate student and I'm now thankful to be able to continue this research as a graduate student. This thesis work has also allowed us to create four undergraduate research projects that link the paleosols with pottery pieces left behind by the Lucayans who previously inhabited San Salvador island. In the moments I'm not focused on my research I also enjoy baking, reading, exploring and playing video games at the collegiate level.

HANNAH LISSNER- USD

ABSTRACT:

"Assessing the Metals Variability, Clay Mineralogy, and Morphology of San Salvador Island Paleosoils."

The Bahamas, located in the tropical Atlantic, have a rich Quaternary geological history that can offer valuable insights into past climate conditions, ecosystem dynamics, and environmental transitions over hundreds of thousands of years. Paleosols, ancient soil horizons that have been preserved in the geological record, outcrop throughout the archipelago and have been shown to serve as critical proxies for past atmospheric conditions and other environmental variables which can be interpreted in part using variability in insoluble residues (IRs), clay mineralogy and morphology.

The study site for this research is San Salvador Island, the easternmost island in The Bahamian archipelago. The entire island is carbonate with the exception of paleosol layers that contain silica based clays and IRs. On San Salvador there are two outcropping paleosol layers, however it is interesting to note that past research has shown three different paleomagnetism dates for these paleosols. IRs within paleosols can vary as a result of source area, insitu diagenesis and weathering. Therefore, understanding the relationships between IRs, clay mineralogy, and morphology is crucial to using these as paleoclimate proxies.

The samples utilized for this study were derived from roughly 200 paleosol cores (approximately 2 cm X 10 cm) collected throughout the island. In this study, 0.1 g of paleosol from each core will first undergo a total rock fusion with lithium tetraborate as a catalyst to aid in melting the sample in a muffle furnace. After complete dissolution in trace metal grade nitric acid, the samples will be analyzed on an ICP-OES for IR ratios of Al, Ti, Th and Zr. The IR data obtained from the ICP-OES will be compared to XRD analysis for clays (specifically Illite and Bohemite) as well as morphological differences in the paleosols. It is important to note that many studies have used paleosols as a proxy for prior climatic conditions on carbonate islands in The Bahamas. However, these studies typically include only a few samples spread over multiple islands without first understanding the intra island variability of the paleosols. This project seeks to fill significant gaps in the current understanding of Caribbean paleosols including the lateral and vertical insitu variability of IRs, clay mineralogy and morphological characteristics. It will also highlight the importance of a robust sample size when researching paleosols to ensure a full profile of the paleosols across a study location.

PRESIDENT'S CORNER

Hello SDAG Members

Wow time is flying; first quarter of 2026 is just about over. We just had our March event; it was well attended and we had a great student turnout! Josh Goodwin, Senior Register for the Board of Professional Engineers, Land Surveyors and Geologists gave a great presentation on understanding geologic licensing in California. There was lots of good information presented for folks just starting the license procedures and for those that will be renewing down the road. Thanks again to Josh for his effort and time! Thanks go out to John Teasley for recording the presentation so if you missed the talk, you could look up the video on our website. And of course, thanks to the officers and Carolyn for all their hard work.

It is also time to **renew your SDAG membership**. Annual membership is super critical of the organization, in that it helps in part to subsidize our students attending our events at a discounted price. Also, if you have not already, please consider becoming a sponsor—sponsorship includes your annual membership and provides critical support for our programs and funds our scholarships. Sponsorship levels start at $100 and that gives you annual membership and recognition on the website and newsletter. It is not too late to sign up to be a member or be a sponsor. Also, be advised we track membership based on when you renew rather than the calendar year, so that way you get an entire year of membership!

Coming up on April 15th, our 2025 Student Scholarship award winners will present:

- Jennifer Morton, SDSU Masters: Ground-truth Studies of the La Nacion Fault Zone, San Diego, California, Nominated by Dr Jillian Maloney
- Cici Jobe, USD Undergrad, From Park to Garden: Collaborative Soil Testing to Support Food Security in Urban San Diego. Nominated by Dr Claudia Avila
- Hannah Lissner, USD Masters, Assessing the Metals Variability, Clay Mineralogy, and Morphology of San Salvador Island Paleosoils. Nominated by Eric Cathcart

Their abstracts are provided in the Newsletter. We will be hosted by Sunbelt; be sure to bring your checkbook (or other forms of payment) for that field guide/book that you need! And be ready to have some great salad and Pizza.
I look forward to seeing you at the **April 15th meeting**, be sure to mark your calendar and register in advance via PayPal.

Also coming up in April is the Pacific Section SEPM Field Trip on April 25 and 26th being hosted by Pat Abbot, see the information in the newsletter. Should be a great field trip!

Any questions about SDAG please feel free to reach out to me at mike@sandiegogeologicalsociety.org.

Cheers,
Mike Palmer
2026 SDAG President

2026 Upcoming Meetings

DATE	SPEAKERS & TOPICS
April 15th	Student Research Presentations by Scholarship Recipients Venue: Sunbelt Publishing
May 20th	Danny Sims, Ph.D. of Controlled Thermal Resources, and Philip S. Neuhoff, Ph.D. : "X-ray diffraction and seismic reflection data constraints on geothermal mineral brine reservoir modelling, Salton Sea Geothermal Field, Imperial Valley, California."
June 10th	Joint meeting with South Coast Geological Society
July 15th	Rick Halsey of the CA Chaparral Institute: Title TBA
August 19th	Monte Marshal, SDSU retired: "Exploring the depths of the Salton Trough- a great example of a transtensional rift valley."
September	No Meeting: Annual Field Trip
October 21st	Wes Danskin, USGS retired speaking on "Geology and Water Resources of the San Diego – Tijuana Area"
November 18th	Joint meeting with AEG Inland Empire Section
December 16th	Annual Holiday Meeting at San Diego History Museum with Tom Demere as Speaker

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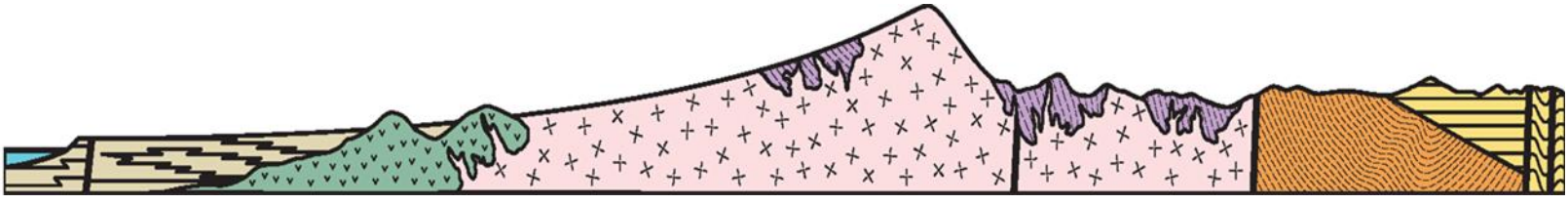
Renew or become a new SDAG Member
2026 Member Dues are Due if you have not already done so.

On-line Payment ($30 Member; $10 Student) or Bring FORM to Meeting

Speakers For 2027 Meetings

If you or someone you know would like to speak at an upcoming meeting contact one of our officers!



2026 SDAG Field Trip

Owens Valley & Cerro Gordo

September 25–27, 2026

Join us for the 2026 SDAG Field Trip exploring the geology of **Owens Valley and Cerro Gordo**. This multi-day trip will examine the tectonic, structural, hydrogeologic, and historical geology of one of eastern California's most geologically significant regions.

LODGING

Group camping is planned at **Diaz Lake Campground**, located near the Alabama Hills. The group site accommodates **tent camping, RVs (dry camping), and car camping**. An optional **Thursday night stay** will be available for participants who wish to arrive early.

GEOLOGIC TOPICS

- Lone Pine Fault scarp and tectonic geomorphology
- Structural geologic transect along Cerro Gordo Road
- Geology and mining history of the Cerro Gordo Mine (guided tour)
- Owens Lake hydrogeology and environmental geology

Additional details, including registration information and a tentative itinerary, will be announced soon.

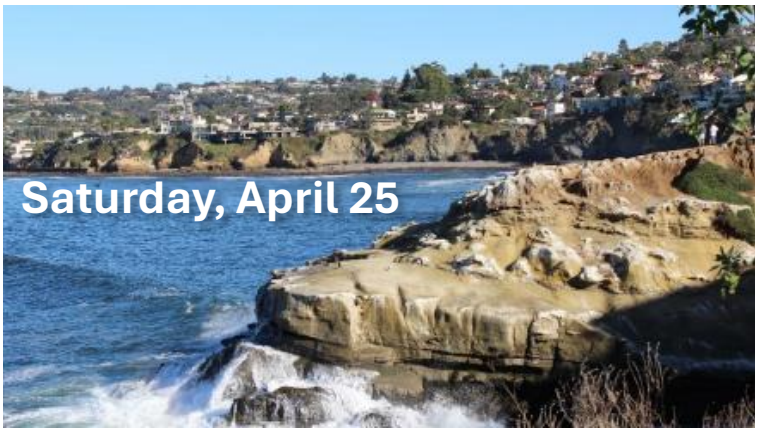
We encourage you to mark your calendars and start thinking about joining us for this engaging field experience.

SAVE THE DATE

UPCOMING FIELD TRIPS

PACIFIC SECTION SEPM FIELD TRIP | 25-26 APRIL 2026

Trip leaders: Pat Abbott with co-leaders Ron Kies & Bill Bartling



Examine all phases of a SUBMARINE FAN in beach cliff exposures of Late Cretaceous (Campanian) strata in La Jolla and Pacific Beach, California. We will "wade through" Cretaceous 1) tidal-channel deposits, 2) see dramatic deepening from 1m to 1km deep water, then take close-up looks at 3) basin plain, 4) outer submarine fan, 5) mid-fan, and 6) inner-fan valley strata.

Walk below 100m high cliffs along Torrey Pines Beach in La Jolla. Examine Eocene lagoonal and tidal-flat deposits that are cut by the north wall of an Eocene SUBMARINE CANYON. Continue walking south and see the lateral coarsening of sediment infill as a prograding alluvial fan delivered ever-coarser sediments into a widening submarine canyon. Added bonus of Paleocene/Eocene Thermal Maximum strata.

SDAG | March Meeting Recap

Our March meeting featured a very valuable presentation by Josh Goodwin, CEG, on professional geology licensure, providing information and outreach to the geologic community.

A huge thank you to Josh Goodwin for joining us to share his expertise straight from the California Board. His thorough breakdown of the licensing process and professional requirements was helpful for geologists at every stage of their careers. Most impressively, Josh showcased his genuinely supportive attitude and dedication to outreach in our community, making it clear just how much he values helping applicants succeed. His clear guidance and enthusiasm for service made this an absolutely standout meeting.

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FIELD TRIP GUIDES & RESEARCH REPORTS

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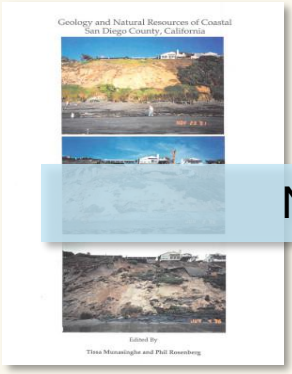
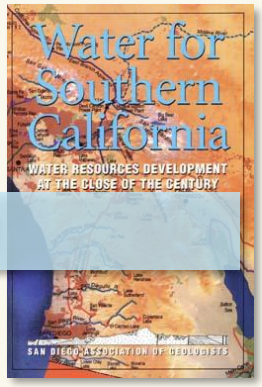
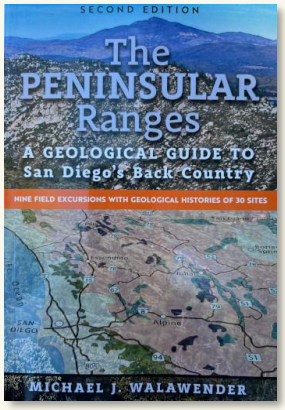


Geology And Natural Resources Of Coastal San Diego County, CA (1996)

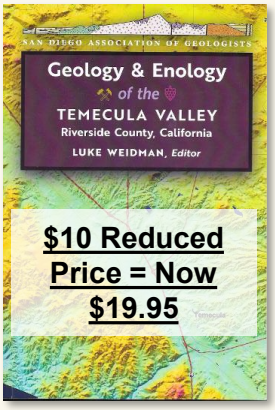
Geology And Geothermal Resources Of The Imperial And Mexicali Valleys (1998)



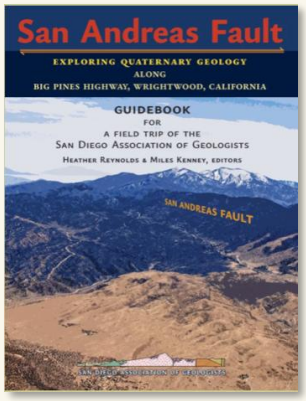
WATER FOR SOUTHERN CALIFORNIA: Water Resources Development (1999)



The Peninsular Ranges: A Geological Guide to San Diego's Back Country 2nd Edition



Geology & Enology of the Temecula Valley Riverside County, California 2nd Edition



San Andreas Fault: Exploring Quaternary Geology Along the Big Pines Highway, Wrightwood, CA

FREE GUIDES AVAILABLE FOR DOWNLOAD

- 1972 Otay Mesa
- 1977 SW San Diego
- 1978 Coronado Islands, BC
- 1979 San Diego Region
- 1987 Julian Gold
- 1981 Geologic Investigations of the San Diego Coastal Plain
- 1982 Geologic Studies in San Diego
- 1985 Eocene in San Diego
- 1989 Fault Features: La Jolla - Ensenada

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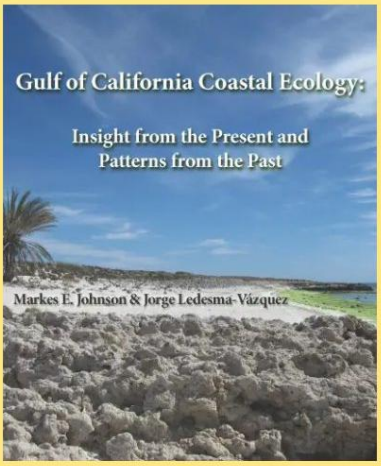


Gulf of California Coastal Ecology

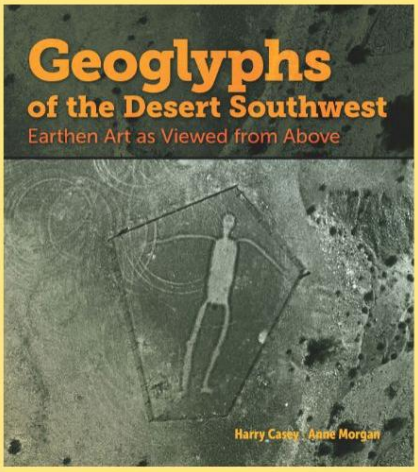
ISBN: 9781941384183
$19.95

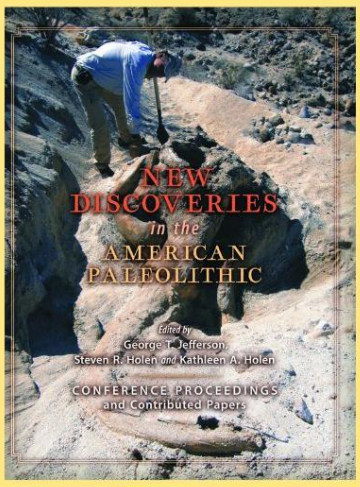
The Sea of Cortés has a rich ecosystem that has survived and thrived for over 12 million years, in some ways shifting dramatically and remaining almost unchanged in others. That extensive natural history is carefully documented and explored by this handbook, making connections and providing a broad but thorough overview of the geography, geology, and ecology of the area. Readers of all knowledge levels will be able to use it as an invaluable resource when exploring the coastline of the Gulf of California.

Geoglyphs of the Desert Southwest

ISBN: 9781941384503
$19.95

The American southwest has one of the largest concentrations of geoglyphs in the world, outside of the Nazca Lines in Peru. These ancient works of art are often made at such a large scale that they are all but invisible unless viewed from above. In the 1970s, photographer Harry Casey, along with archaeology professor Jay von Werlhof and his students, embarked on a quest to find and record these awe-inspiring sites before human activity could damage them anymore.





New Discoveries in the American Paleolithic

ISBN: 9781941384640
$29.95

The common assumption is that humans began populating the Americas around 16,000 years ago, but recent discoveries have thrown that number into question. Evidence has surfaced that the true timeline may have been hundreds, or even thousands of years earlier still.

This book is a compilation of papers and proceedings from a conference held in January of 2019 about this exact subject; all together, this book presents compelling evidence that throws into question everything we currently know about the timeline of humanity in the Americas.

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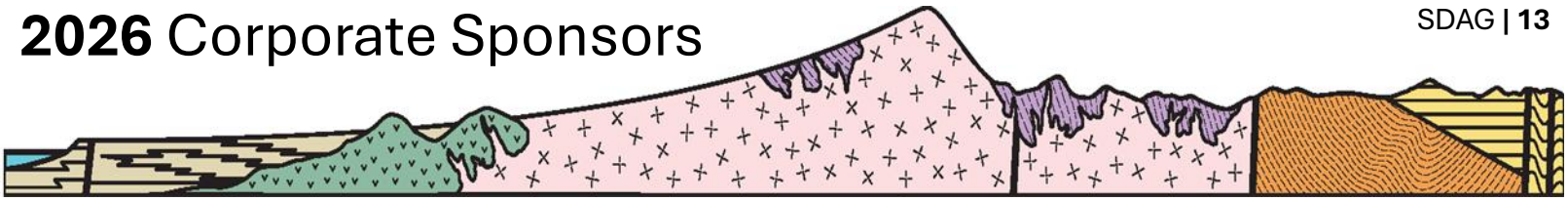

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