

## PBS-SEPM NEWSLETTER

May 2020

PRESIDENT'S 2 COLUMN

PBS-SEPM
May Luncheon,
Ice Cream Social

PBS-SEPM
Publication: \*NEW\*
Carbonate Well Log &
Core Data Analysis
Spreadsheet V.5

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## PBS-SEPM June Luncheon,

Speaker: Sarah Tamilarasan, Title: Well optimization powered by Artificial intelligence and Machine Learning

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Publications:
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PBS-SEPM
July Luncheon,
Speaker:
Dr. Rebecca Dodge,
Title: Status of Global
Ice—the View from
Above

PBS-SEPM Executive Board 2019-2020

BALLOT FOR 2020-2021 BOARD COMING May 4th Through Email PBS-SEPM Sponsorship:

Corporations & Individuals

About PBS-SEPM | 0

Wendell J. Stewart Scholarship Fund & Robert Read Distinguished Lecturer Series



#### KEY DATES For May, June, & July

#### **MAY 2020**

5

- 14: SPE Managing Industrial CO2
   Emissions with CCUS and 45Q Tax
   Credits Webinar, Dr. Tip Meckel, <u>Click</u>
   Here, 10:30 am-12 pm
- 19: PBS-SEPM Luncheon, Bush Convention Center, 11:30am— 1pm, Ice Cream Social

#### **JUNE 2020**

- 09: WTGS Luncheon, Midland Country Club, 11:30am-1pm, John Brotherton, Tectonic Evolution of the Penn-Early Permian Orogrande Basin Revealed Through Backstripped Subsidence Curves & Structural Analysis
- 16: PBS-SEPM Luncheon, Bush Convention Center, 11:30am-1pm, Sarah Tamilarasan

 24: SPE Minimizing Risk through Gravel Pack Design Workflow Webinar, Samyak Jain, Click Here 8:30 am

#### **JULY 2020**

- 4: HAPPY 4TH OF JULY
- 21: PBS-SEPM Luncheon: Bush Convention Center, 11:30am – 1 pm, Dr. Rebecca Dodge
- 28: SPWLA-PB Luncheon: Midland College, Carrasco Room, 11:30am-1pm, TBD

#### President's Column

I hope this newsletter finds all of you and your families safe and sound. There have been many changes in all our lives, from the Covid-19 outbreak and lockdown to many of us losing our means of income from the oil price crash.

I know it is hard to be strong and keep a positive attitude with so much uncertainty, but please try for your sake and those around you. The oil field will recover, it may take some time, but it will.

Now would be a very good time for those who are seeing a true oil crash for the first time to find a mentor. It always helps to get advice from someone who has been through this type of situation before. Their expertise and experience will help you maneuver through these rough times. Also, reaching out to our older members will help all of us feel less isolated during this time of trouble. Please feel free to send us a note if you are looking for a mentor, or if you would be willing to mentor someone in our little society. You can drop us a note at <a href="info@pbs-sepm.org">info@pbs-sepm.org</a> and we will compile a list of those individual who would like to participate.

Due to the Covid-19 disruption we have had to reschedule several items. The 2020 - 2021 PBS-SEPM election will take place the first week of May via email. We had to move our deadline date for scholarship applications to May 1, 2020. Also we have moved our scheduled luncheon speakers for April and May further down the calendar to May 19<sup>th</sup>, June 16<sup>th</sup>, & July 21<sup>st</sup>. This is of course provided the lockdown does not get reinstated.

I would like to give a huge thank you to all of my fellow 2019 – 2020 board members. Mike, Dan, Justin, Cindy, and Alexis have all done an amazing job this year. I would also like to give a big thank you to Frank Fulbright, our webmaster. Frank has done wonderful with all we have thrown at him this year, keep up the great work Frank! And, where would we be without Robert Campbell. He and the other leaders of the Young Professional's Field Trip have done an great job leading and organizing the annual trip for the last 11 years. Unfortunately, due to the current circumstances we were unable to have the YPFT this year. Be assured that we will be hosting the YPFT next year, provided we are allowed to do so.

We have also had to postpone the ROZ Core Workshop and Field Trip. We have tentatively planned for the workshop and field trip to take place at the Bush Center in November 2020. We will send out more details as we get closer to the date.

Looking forward seeing all of you at the next meeting. Everyone stay safe, wash your hands, try not to get sick, be good to each other, and always try to keep your sense of humor! Laughter is like spring sunshine, it makes everything bright and sunny.

## Sandra Elliott

PBS-SEPM President 2019-2020

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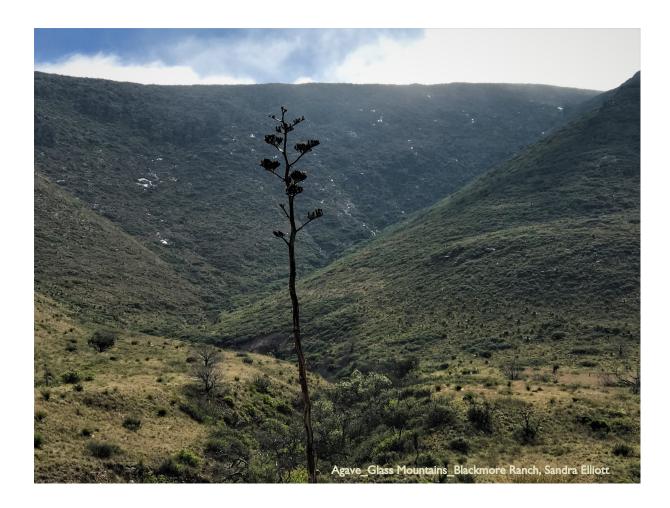


## PBS-SEPM Luncheon Talk - May 19, 2020

# **May Luncheon Ice Cream Social**

Tuesday, May 19, 2020 - Bush Convention Center, 11:30 a.m.

Raffles, Geology Games, Fountainville Ice Cream



"I don't think of all the misery but of the beauty that still remains."

-Anne Frank (1929-1945)

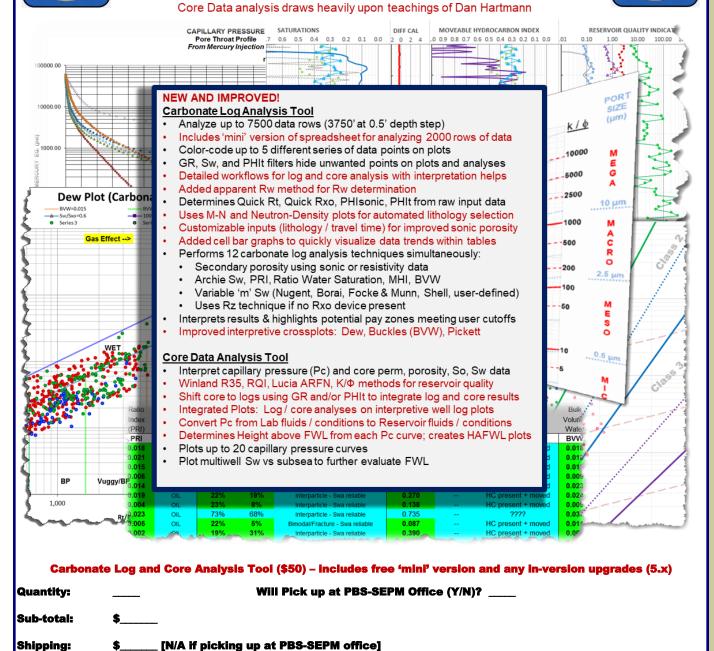


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## Carbonate Log & Core Analysis Spreadsheet v. 5.0 By Cory L. Hoffman, Ph.D.







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#### PBS-SEPM Luncheon Talk – June 16, 2020

#### Sarah Tamilarasan

"Well optimization powered by Artificial intelligence and Machine Learning"

Co-Founder & CEO SOTAOG

Tuesday, June 16, 2020 - Bush Convention Center, 11:30 a.m.

#### **Abstract**

In the Oil and Gas industry, there is a 200 billion dollar Performance Gap stemming from widespread inefficiencies, resulting in lost profitability. Leveraging Artificial Intelligence / Machine Learning (Al/ML) to deliver real time, self-optimizing wells can solve this issue. Al/ML results mean that inefficiencies are predicted at scale, with the sole purpose of maximizing revenue. The key differentiator Al/ML brings to the table is the analysis of interdependencies between several datapoints in an asset, all at the click of a button. According to McKinsey Oil and Gas, Al/ML analytics applied correctly can provide returns as high 50 times the investment.

This application vastly surpasses the traditional SCADA systems, thanks to its fusion of IoT Edge and Cloud analytics (Al software). Real time data can be downloaded from any machine, hardware brand agnostic, processed via algorithms, and deliver value at the user's fingertips. Here are few of the results:

- Wells are optimized within hours, improving BOPD by a minimum of 3% across the business;
- Wells that are down are analyzed based on IRR within minutes and appropriate workover dollars can be allocated;
- With 360 view, blue collar workers can proactively identify areas to maximize asset uptimes, allowing a 7 person team to operate at the capacity of a 70 person team.

## **Biography**

Sarah Tamilarasan is the Co-founder and CEO of SOTAOG, a cutting edge digital solution for industry. The corporate vision of SOTAOG is to facilitate "Real-time self optimizing operations powered by Al/ML" to intelligently analyze inter-dependencies of terabytes of data at the stroke of a button, and thereby to drive Predictive Analytics to improve operational efficiencies. She is passionate about clients and works hard to solve operational problems through cutting edge tech that used to be afforded exclusively by the Majors.

Sarah has more than 15 years of industry experience with expertise in facilities engineering, sensor technology and field operations. Prior to co-founding SOTAOG with President Robert Estill in 2017, Tamilarasan's work included consulting with a private IIOT company, leading its entry into the U.S. market and providing advanced facility designs utilizing premier edge sensor and

automation solutions.

From 2012 to 2015, she worked at Carrizo Oil & Gas, where she oversaw facility construction, operations, and spearheaded the implementation of wireless technology in more than 40 facilities in the Eagle Ford shale play. From 2005 to 2012, Tamilarasan worked for Marathon Oil, where she capped her tenure there as facilities engineer (2009 to 2012), working with Marathon's onshore team to automate multiple large-scale facilities.





"If they can't learn the way we teach, we teach the way they learn."

-Dr. O. Ivar Lovaas (1927-2010) Applied Behavior Analysis, specifically with Autism Spectrum Disorder

#### **PBS-SEPM Publications**



# PBS-SEPM Symposia And Core Workshops on 3 DVDs



This is your opportunity to have the entire PBS-SEPM publication library (1955 – 2007) at your finger tips. There is a fully searchable Table of Contents—find a topic or author just by typing in the word(s). All publications are in Adobe PDF with all major articles being bookmarked, and all the figures are linked in the text for quick reference. Those areas that are off limits to geologists like the Glass Mountains or Sierra Diablos have been written up in these publications. Numerous out-of-print publications and figures and/or plates not published in the original guidebooks are now available in this library.

This includes all publications, even the special publications and coveted core workshops. Can you imagine the hidden treasures you might find? Here is your chance to uncover them in this special three (3) DVD set. *Buy one or all*.

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### PBS-SEPM Luncheon Talk – July 21, 2020

## Dr. Rebecca Dodge

"Status of Global Ice—the View from Above"

Kimbell School of Geosciences, Midwestern State University Tuesday, July 21, 2020 - Bush Convention Center, 11:30 a.m.

#### **Abstract**

The eyes of NASA's earth resource and environmental satellites observe the entire world with the purpose of identifying or predicting the changes that the earth will face over the next several decades, whether they are natural or human-induced. Identifying changes and monitoring trends in the atmosphere, in the oceans, and on the land involves numerous satellite sensors and platforms. Nowhere is the evidence of global climate change more impressive than at high latitudes and high altitudes; the "ice worlds" are melting. Land ice and sea ice impacts are documented particularly well from airborne and space-based sensors, which can monitor vast remote regions as melting occurs. Ice shelf disintegration and glacial retreat/advance globally will be highlighted in this presentation, using imagery from a variety of Earth Observation satellites, including those specifically designed to monitor the cryosphere.

#### **Biography**

Dr. Dodge received her M.S. and Ph.D. from Colorado School of Mines, mapping and dating active faults in NW Nevada. Her first post-grad job involved photogeologic and field mapping of active faults in Nevada and Utah for the USGS Branch of Earthquake Tectonics and Risk. Her move to petroleum continued the imagery-application and structural mapping focus, with airborne / spaceborne photography and imagery. She spent 14 years in oil exploration, applying remote sensing technology to international exploration and environmental projects. She also served as a consultant with Australian Photogeological Consultants, exploring for minerals in the Andes of Chile, Argentina, and Peru. She is a Certified Geologist in Texas and is a Certified Petroleum Geologist with the American Association of Petroleum Geologists (AAPG). She has served as the President of the Dallas Geological Society, AAPG House of Delegate for 10 years (Georgia Geological Society) and as the president of both the Energy Minerals and Environmental Geology Divisions of AAPG. She retired to Midland in August of 2018.

Since joining academia 22 years ago, she has been researching and teaching the uses of satellite imagery for resource exploration and environmental management applications. She is currently an

emeritus Geology and Environmental Science adjunct professor at Midwestern State University. In addition, she is deeply committed to training and educating future science teachers in geosciences, earth system science, and environmental observation techniques, with an emphasis on the integration of field observations and geospatial technology. She is currently providing Earth Science teacher training through the American Geosciences Institute, with grant funding from the American Association of Petroleum Geologists Foundation. She has a grant from the U.S. Geological Survey to provide teachers and faculty with geospatial technology training. She is also consulting on teaching resources development with textbook companies and online teaching resource developers. She volunteers in K-12 classrooms through the West Texas Geological Society.





"Be the reason someone smiles.

Be the reason someone feels
loved and believes in the
goodness in people"

Roy T. Bennett Author

### PBS-SEPM Executive Board (2019-2020)

President: Sandra Elliott Sandra.Elliott@apachecorp.com

**President-Elect:** Mike Raines raines.ma@gmail.com

First Vice President: JMauck@slb.com Justin Mauck

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**OPEN POSITION** Luncheon Chairman

Webmaster Frank Fullbright frank.fullbright@pofg.com Do you have an idea for an interesting luncheon talk? Have a core work**shop** you'd like to present? Have some suggestions on how PBS-SEPM can better serve the geo*logic community?* Send us an e-mail to share your idea, your PBS-SEPM Executive Board wants to hear from

Corporate Sponsorships (2019-2020) - PBS-SEPM is grateful for the generosity of these fine corporate sponsors!



you!

Haired Pig, Orkney Islands, Sandra Elliott





"All I have is a sense of duty toward all people and an attachment to those with whom I have become intimate."

-Albert Einstein (1879-1955)

**Physicist & Inventor** 

If you are interested in a sponsorship opportunity, please call PBS-SEPM for more details at (432) 279-1360 or e-mail info@pbs-sepm.org.

## **Sponsorship Information (2019-2020)**

This year we plan on zealously pursuing sponsors to offset the cost of the luncheons, workshops, and field trips. We have revamped our sponsorship contribution into three categories and will run the same as the membership year, June 1st to May 31st each year.

Gold: \$1000.00: company logo on all PBS-SEPM events, newsletters, the website and new publications

Silver: \$750.00: company logo on all PBS-SEPM events, newsletters, and the website

Bronze: \$500.00: company logo on all PBS-SEPM luncheons, newsletters, and the website

We are compiling a list of industry companies, vendors, and local businesses to send out our sponsorship request. We believe encompassing the Midland businesses, such as grocery stores, restaurants, hardware stores, etc, that all play a role in keeping the Permian Basin area up and running should also be considered as potential sponsors for our events.

## **Individual Sponsors of PBS-SEPM (2019-2020)**

Individual sponsors are advertised on the PBS-SEPM website and each newsletter. Cost is \$85/year. If you are interested in a sponsorship opportunity, please call PBS-SEPM for more details at (432) 279-1360 or email info@pbs-sepm.org.

#### Your Business Card Could be here!

Your card will be in every newsletter for one year from August to May, on the PBS-SEPM Website, and on the PowerPoint shown prior to every luncheon.



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showing
your
support of
PBSSEPM.

Your support lifts your corporate name within the Permian Basin.

"Kindness is the best form of humanity."

-Doris Lee (1905-1983)

**American Painter** 





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"The more we take, the less there is for future generations."

-Phil Kingston (1936-)

Lecturer, Climate Activist and Protestor May 2020 Page 10

PBS-SEPM is the Permian Basin Section of SEPM—the Society for Sedimentary Geology. However, you do not need to be a SEPM member or a geologist to join PBS-SEPM.

Our non-profit society relies entirely upon the efforts of dedicated volunteers to serve the geological community—primarily through educational events. These events include monthly luncheon talks, core workshops, annual field trips, and special geological publications. Additionally, we are involved on the college campuses—reaching out to future earth scientists through scholarships, discounted memberships, and offering full-time geology students the ability to participate in professional-grade field trips at little to no cost.

If you would like to join PBS-SEPM, you may visit our website (<u>www.pbs-sepm.org</u>) to learn more about us, download a membership form, and learn how to get involved.

#### Scholarship and Distinguished Speaker Events (2019-2020)

Wendell J. Stewart Fund: so named for the famous sequence stratigrapher, was initially funded by the family, and then later through PBS-SEPM members who have contributed over the years. In the past, the scholarship was established to award high school students intending to pursue a college education in the geoscience field (declared major), and had evolved to include college students actively pursuing a geology degree when there were no other qualified candidates. Funding for this scholarship has waxed and waned over the years with the changes of the petroleum industry and because this scholarship is set up in such a manner that only the interest can be used to distribute funds, most scholarships in the last 30 years have been awarded through the PBS-SEPM main budget and not the scholarship fund.

\*We will be selecting the recipient of this award May 8th\*

Robert Reed Distinguished Lecturer Fund: was founded to honor a bright, young geologist who had been an active member of both PBS-SEPM and WTGS and was tragically killed by a drunk driver. Donations from various members of both societies contributed to a membership donation fund that both encourages our continuing education efforts by helping offset the cost of bringing in a distinguished lecturer, usually in geosciences, but not required. However, since its creation, PBS-SEPM has never used the funds to bring in a lecturer.