

Research LAUNCHER Program

The Team Member(s)

Consortium <u>AAPG / Work with appropriate affiliate</u>	d society, geological library,	etc
Company/University:AAPG affiliates / partners		
Check which apply to you: 🗵 Independent Researchers	☐ Professor ☐ Corporate	Research 🗵 Geological Society
Primary phone: ()	Secondary phone: ()
Address:		
City:		
Country:		
Email: <u>educate@aapg.org</u>		Fax: <u>(</u>
Short Bio: (250 words or less)		
This project will be completed by a hand-selected to unconventionals and a unique ability to integrate no previous operations.	•	·

Project Description

1. Name of project <u>STACKED PAY EXTENSION SERIES: Central Oklahoma (Lincoln, Oklahoma, Cleveland, McClain Counties)</u>

This project has a brief 6-month timeline, which could potentially be accelerated to 3 months in order to provide timely

2. Brief synopsis/areas of geosciences or engineering (50-75 words)

information for strategic decision-making.

Goal: Find new "stacked with unconventionals" plays which have multiple zones of previously unproducible unconventional resources, which can now be produced using new technologies of identification of zones, combined with horizontal drilling and the latest innovations in multistage hydraulic fracturing.

This research project utilizes the unique resources of AAPG and affiliated society repositories and expertise in order to complete an in-depth investigation of new potential for additional oil and gas production using a combination of new information and new technology. The final product will be a report and a set of maps / cross-sections / diagrams that identify newly prospective areas and also recommend the types of technologies (along with a workflow) needed to successfully drill, complete, and produce the new zones. This research project will identify 100 wells with in-depth information, along with at least 150 wells with less information, for a total of 250 wells in the study area.

Final Package:

- <u>Summary report with New Prospect Zone Identification Map</u>
- Extensive report containing supporting detail maps / diagrams / details:
 - o Geochemistry profile / map: TOC / Maturity / other information

- Existing production
- "Show map" (porosity, HC saturation, permeability isopachs)
- Fracture typing / fracture network typing
- Porosity type / characterization typing
- Mineralogy (XRD, etc.) utilizing data where available
- Major structural features
- Cross sections
- Type logs
- o Old qualitative information: sample logs / strip logs / core descriptions
- Petrophysics / geomechanical information (where available)
- o Seismic (where available) to determine structure
- XRF type values
- 3. Bullet list of 5-7 main outcomes/goals.
 - 1. New evaluation of old zones: rank previously uneconomic or unproducible zones according to their new prospectivity
 - 2. Areas of high potential for new zones (along with possible bypassed pay zones)
 - 3. In-depth new view of possible extension of resource plays (Woodford, Mississippian, conglomerates, etc.)
 - 4. New views of porosity (integrating old, overlooked information with new technologies & tools)
 - 5. New views of permeability (integrating old, overlooked information with new technologies & tools)
 - 6. Recommendations for new drilling / in-fill drilling / new zone exploitation
- 4. In two or three sentences, describe why your research is important. Please mention who will benefit from your work.

This research is important in two key respects. AAPG will work with the owners of the appropriate data; AAPG will coordinate

5. Timeline with milestones (12 month/18 month)

This is a 6-month project with tight timelines in order to give the funders the opportunity to secure leases and/or farmouts, or to participate in wells that take advantage of new technologies to make previously unproducible or uneconomic zones now producible.

- 6. Funding amount needed to achieve first basic goals within 12 months. Please provide a brief summary overview of your budget. List costs of 5-10 main items.
 - o Cost of data, copies, reproduction, licenses: \$30,000 (for a single funding source)
 - We can accept up to 15 individual subscribers for \$2,000 each
- 7. In the process of gaining background knowledge in the field of your proposed research, who did you find to be the top two or three researchers? What are the main concepts that are being explored? Please briefly describe.

There are a number of companies, researchers, and research consortia currently investigating shale plays, unconventionals. To list them here would be fairly counter-productive because the body of knowledge is made of a community, and not a single luminary. That said, there leaders who have taken bold steps to tackle the previously unproducible formations. They include Chesapeake, Continental, Pioneer, SandRidge, Devon, Cimarex, Newfield, Ceja, and many others.

- 8. Team Members: Qualified individuals
- 9. Who will benefit? Anyone who would like to be involved in extending the productive limits of Oklahoma formations.

AAPG Research LAUNCHER supporters receive

Final Package as detailed above, along with progress reports.

The Deal

The researcher agrees to:

- Share a brief annotated bibliography and review of relevant published articles
- Present non-confidential elements of the research project at an AAPG Forum, GTW, or Research Symposium
- Deliver the Final Package as detailed above
- Write a extended abstract on the results of your research to be made available to AAPG

Thank you for submitting your research proposal to the AAPG Research LAUNCHER Program. Your proposal will be reviewed and upon acceptance you will be contacted by AAPG Education/Research. If your proposal is accepted, we will publicize your proposal and encourage funders to contact you directly. AAPG does not guarantee funds nor have any connection with the success or failure of the endeavor. The goal is to support scientific research in the petroleum geosciences and engineering and launch the next generation of geological advances.

AAPG Education/Research

P.O. Box 979 | Tulsa, Oklahoma 74101, USA Phone: 918-560-2650 | Fax: 918-560-2678

Email: educate@aapg.org

www.aapg.org