

## **MATTHEW J. PRANTER**

*Victor E. Monnett Endowed Chair in Energy Resources  
& Professor of Geosciences*

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## **EDUCATION**

### **Ph.D. in Geology**

Colorado School of Mines, Golden, Colorado

- Dissertation: *Use of a Petrophysical-Based Reservoir Zonation and Multicomponent Seismic Attributes for Improved Geologic Modeling*
- Minor: Petroleum Engineering
- Paul S. Pustmueller Scholarship
- Geological Society of America Research Grant
- American Association of Petroleum Geologists Research Grant (awarded 2 grants)
- Society of Professional Well Log Analysts Research Grant (awarded 2 grants)
- Sigma Xi, Scientific Research Honor Society
- Advisor: Dr. Neil F. Hurley
- Committee Members: Drs. Tom Davis, Roger Slatt, Craig Van Kirk, Rod Eggert

### **M.S. in Geology**

Baylor University, Waco, Texas

- Thesis: *Facies Analysis of the Strawn Submarine Fan Complex: Fort Worth Basin, Central Texas*
- Wendlandt Assistantship for Academic Achievement
- Sun Company Scholarship
- American Association of Petroleum Geologists Research Grant
- Advisor: Dr. Robert C. Grayson, Jr.

### **B.S. in Geological Engineering**

Colorado School of Mines, Golden, Colorado

- Hydrogeology and geotechnics (Engineering Track)
- Tau Beta Pi, National Engineering Honor Society
- Graduated with High Scholastic Honors
- Professional Engineer-Intern (EIT): State of Colorado

### **B.S. in Geology**

Oklahoma State University, Stillwater, Oklahoma

- Minor: Petroleum Engineering
- Skinner Scholarship for Academic Achievement

## EXPERIENCE

**Victor E. Monnett Endowed Chair in Energy Resources**, 2020-present

**Professor of Geosciences**, 2013-present

**Law and Myra Ward Endowed Chair in Reservoir Characterization**, 2013-2019

University of Oklahoma

Mewbourne College of Earth and Energy

School of Geosciences

Norman, Oklahoma

**Associate Professor of Geological Sciences**, 2008-2013

**Assistant Professor of Geological Sciences**, 2001-2008

University of Colorado Boulder

College of Arts and Sciences

Department of Geological Sciences

Boulder, Colorado

**Senior Research Geologist**, ExxonMobil Upstream Research Company, 1999-2001

Houston, Texas

- Reservoir Characterization Division - Geologic Modeling Section
- Conducted geologic modeling research and research applications on deep-water and carbonate reservoirs and systems using object-based and cell-based methods.
- Built object-based geologic models of the Forties field "Charlie channel" deepwater channel complex; models were used to investigate development scenarios of deepwater reservoirs.
- Co-instructor for ExxonMobil's 3-D Modeling of Sandstone Reservoirs School. Taught sandstone facies modeling exercises and prepared and instructed exercises on petrophysical modeling and petrophysical modeling using trends.
- Conducted short-term assignment with ExxonMobil Exploration Company; used high-resolution 3-D seismic data and amplitude versus offset (AVO) techniques to explore for deepwater sandstone reservoirs offshore Angola.
- Selected as geologic modeler for ExxonMobil's Carbonate Reservoir Collaborative (CRC). The CRC is a multidisciplinary project whose goal is to improve current characterization and 3-D modeling technology and methodology associated with carbonate reservoirs.

**Research Assistant**, Colorado School of Mines, 1996-1999

Golden, Colorado

- Reservoir Characterization Project (RCP) Research Center – RCP Phase VII: Dynamic Reservoir Characterization at Vacuum Field, New Mexico.
  - Conducted most aspects of integrated reservoir characterization to address the controls of sequence stratigraphy, structure, and diagenesis on reservoir performance.
  - Work included core description and well-log analysis through 3-D seismic interpretation, attribute analysis, and geologic model construction.
- Assisted in the preparation of the Atlas of Oil and Gas Plays on American Indian Reservations for the U.S. Bureau of Indian Affairs through the Department of Geology and Geological Engineering.

**Research Geologist**, Exxon Production Research Company, 1998

Houston, Texas

- Reservoir Geometry and Continuity Division - Geologic Modeling Section
- Built object-based geologic models and forward seismic models to compare static connectivity and 3-D seismic expression of channel-dominated and bar-dominated fluvial reservoirs.
- Co-published 2 internal research reports that document the research results.

**Research Geologist**, ARCO Exploration and Production Technology, 1997  
Plano, Texas

- Exploration Research and Technical Services - Geophysical Interpretation Research Group
- Conducted an integrated 3-D seismic interpretation and AVO analysis of Paleocene channels and turbidite sands, central North Sea.

**Reservoir Geologist / Geophysicist**, Conoco Inc., 1989-1994  
Midland, Texas

- Project Team Leader for \$5 million reservoir characterization and development program (Patterson Lake field). Patterson Lake was Conoco's first onshore development program in North America to utilize company-designed and processed 3-D seismic data. The latest seismic technology and modeling was used to delineate and map Permian (Wolfcampian) carbonate debris flow reservoirs and select optimum well locations.
- Produced detailed 3-D seismic maps of isolated pinnacles associated with the eroded top of a Pennsylvanian carbonate reservoir at Roundtop field. Utilized 3-D seismic data to determine in-fill development well locations.
- Recommended reservoir management plan to optimize waterflood operations for 53 wells within the highly vuggy and fractured Pennsylvanian Limestone (Strawn Formation) at Todd field. Estimated increase in secondary reserves was 2.7 million barrels. Reservoir plan was approved and implemented.

**Geologist / Geophysicist**, Sun Exploration and Production Company, 1988  
Dallas, Texas

- Gulf of Mexico and East Coast District: Generated prospects for Lease Sale 115 (Texas Offshore); evaluated detachment-fold anticlines related to salt tectonics within the Perdido fold belt utilizing two-dimensional seismic and well data.

**Graduate Teaching Assistant**, Baylor University, 1988-1989  
Waco, Texas

- Instructed graduate, junior, and freshman level geology labs including Carbonate Depositional Systems, Sedimentary Petrology, and Earth Science.
- Co-led field trips for undergraduate non-majors in Introductory Geology and Earth Science courses.

## **PROFESSIONAL AFFILIATIONS**

American Association of Petroleum Geologists (AAPG)  
Society for Sedimentary Geology (SEPM)  
Geological Society of America (GSA)  
European Association of Geoscientists & Engineers (EAGE)  
Society of Exploration Geophysicists (SEG)  
Rocky Mountain Association of Geologists (RMAG)  
Oklahoma City Geological Society (OCGS)

## **PROFESSIONAL REGISTRATION**

Professional Geologist (PG): State of Arkansas # 1757  
Professional Engineer-Intern (EIT): State of Colorado

## RESEARCH

### **PUBLICATIONS** (*\*denotes student coauthor; \*\*denotes post-doc coauthor*)

#### Refereed Publications

30. \*Tellez, J. J., **M. J. Pranter**, and R. Cole, 2019, in review, Fluvial sequence stratigraphy and architecture of the Burro Canyon Formation, southwestern Piceance Basin, Colorado, Interpretation.
29. \*Zapata, Y., \*T. N. Phan, M. R. Kristensen, C. S. Kabir, **M. J. Pranter**, and Z. A. Reza, in review, CO<sub>2</sub> sequestration in saline aquifers – using an integrated modeling framework incorporating geological and multiphysics considerations, Interpretation.
28. \*Machado, G. L. \*G. J. Hickman, \*M. P. Gogri, K. J. Marfurt, **M. J. Pranter**, and Z. A. Reza, in press, Characterization of Arbuckle-basement waste-water disposal system, Payne County, northern Oklahoma, Interpretation.
27. \*Pires de Lima, R., \*F. Suriamin, K. J. Marfurt, and **M. J. Pranter**, 2019, Convolutional neural networks as aid in core lithofacies classification, Interpretation, vol. 7, no. 3, p. SF27–SF40.
26. \*Phan, T. N., \*Y. M. Zapata, C. S. Kabir, J. D. Pigott, **M. J. Pranter**, and Z. A. Reza, 2019, Probing hydraulically-fractured wells in unconventional shale reservoirs under cyclic CO<sub>2</sub> injection: Variation of thermophysical properties, Journal of Petroleum Science and Engineering, p. 1-14.
25. \*Clark, S. A., **M. J. Pranter**, Z. A. Reza, and R. D. Cole, 2018, Fluvial architecture of the Burro Canyon Formation using unmanned aerial vehicle-based photogrammetry and outcrop-based modeling: Implications for reservoir performance, Escalante Canyon, southwestern Piceance Basin, Colorado. Interpretation, vol. 6, no. 4, p. T1117-1139.
24. \*Wethington, N., and **M. J. Pranter**, 2018, Stratigraphic architecture of the Mississippian limestone through integrated electrofacies classification, Hardtner field area, Kansas and Oklahoma, Interpretation, vol. 6, no. 4, p. T1095-T1115.
23. \*Suriamin, F., and **M. J. Pranter**, 2018, Stratigraphic and lithofacies control on pore characteristics of Mississippian limestone and chert reservoirs of north-central Oklahoma, Interpretation, vol. 6, no. 4 p. T1001-T1022.
22. \*Lewis, K. D., **M. J. Pranter**, Z. A. Reza, and R. D. Cole, 2018, Fluvial architecture of the Burro Canyon Formation using UAV-based photogrammetry and outcrop-based modeling: implications for reservoir performance, Rattlesnake Canyon, southwestern Piceance Basin, Colorado, The Sedimentary Record, Society for Sedimentary Geology, vol. 16, no. 3, p. 4-10.
21. \*Gogri, M. P., J. M. Rohleder, C. S. Kabir, **M. J. Pranter**, and Z. A. Reza, 2018, Prognosis for safe water-disposal-well operations and practices that are based on reservoir flow modeling and real-time performance analysis, SPE Reservoir Evaluation & Engineering, doi:10.2118/187083-PA, p. 1-17.
20. \*Turnini, A. M., **M. J. Pranter**, K. J. Marfurt, 2017, Mississippian limestone and chert reservoirs, Tonkawa Field, north-central Oklahoma, in G. M. Grammer, J. M. Gregg, J. O. Puckette, P. Jaiswal, S. J. Mazzullo, M. J. Pranter, and R. H. Goldstein, eds., Mississippian Reservoirs of the Midcontinent, AAPG Memoir 122.

19. \*Qi, X., \*J. Snyder, \*T. Zhao, K. J. Marfurt, and **M. J. Pranter**, 2017, Correlation of seismic attributes and geo-mechanical properties to the rate of penetration in the Mississippian Limestone, Oklahoma, in G. M. Grammer, J. M. Gregg, J. O. Puckette, P. Jaiswal, S. J. Mazzullo, M. J. Pranter, and R. H. Goldstein, eds., Mississippian Reservoirs of the Midcontinent, AAPG Memoir 122.
18. \*Lindzey, K. M., **M. J. Pranter**, and K. J. Marfurt, 2017, Lithological and petrophysical controls on production of the Mississippian Limestone, northeastern Woods County, Oklahoma, in G. M. Grammer, J. M. Gregg, J. O. Puckette, P. Jaiswal, S. J. Mazzullo, M. J. Pranter, and R. H. Goldstein, eds., Mississippian Reservoirs of the Midcontinent, AAPG Memoir 122.
17. \*Shelley, S., G. M. Grammer, and **M. J. Pranter**, 2017, Reservoir characterization and modeling of a subsurface Meramec analog from a quarry in northeastern Oklahoma, in G. M. Grammer, J. M. Gregg, J. O. Puckette, P. Jaiswal, S. J. Mazzullo, M. J. Pranter, and R. H. Goldstein, eds., Mississippian Reservoirs of the Midcontinent, AAPG Memoir 122.
16. \*Allen, D. B., and **M. J. Pranter**, 2016, Geologically constrained electrofacies classification of fluvial deposits: an example from the Cretaceous Mesaverde Group, Uinta and Piceance basins, AAPG Bulletin, v. 100, no. 12 (December 2016), p. 1775-1801.
15. \*El Attar, A., and **M. J. Pranter**, 2016, Regional stratigraphy, elemental chemostratigraphy, and organic richness of the Niobrara Member of the Mancos Shale, Piceance Basin, Colorado, AAPG Bulletin, v. 100, No. 3 (March 2016), p. 345–377.
14. \*Keeton, G. I., **M. J. Pranter**, E. R. (Gus) Gustason, and R. D. Cole, 2015, Stratigraphic architecture of fluvial deposits from borehole images, spectral-gamma-ray response, and outcrop analogs, Piceance Basin, Colorado, AAPG Bulletin, v. 99, No. 10, p. 1929-1956.
13. **Pranter, M. J.**, \*A. C. Hewlett, R. D. Cole, H. Wang, and J. R. Gilman, 2014, Fluvial architecture and connectivity of the Williams Fork Formation: use of outcrop analogues for stratigraphic characterisation and reservoir modelling, in T. Good, J. Howell, A. W. Martinius, eds., Sediment-body geometry and heterogeneity: analogue studies for modelling the subsurface, The Geological Society of London, Special Publication, vol. 387, 308 p.
12. \*Baytok, S. and **M. J. Pranter**, 2013, Fault and fracture distribution within a tight-gas sandstone reservoir: Mesaverde Group, Mamm Creek Field, Piceance Basin, Colorado, U.S.A., Petroleum Geoscience, vol. 19, p. 203-222.
11. **Pranter, M. J.** and \*N. K. Sommer, 2011, Static connectivity of fluvial sandstones in a lower coastal-plain setting: An example from the Upper Cretaceous lower Williams Fork Formation, Piceance Basin, Colorado, AAPG Bulletin, vol. 95, p. 899-923.
10. **Pranter, M. J.**, R. D. Cole, \*H. Panjaitan, \*N. K. Sommer, 2009, Sandstone-body dimensions in a lower coastal-plain depositional setting: lower Williams Fork Formation, Coal Canyon, Piceance Basin, Colorado, U.S.A., AAPG Bulletin, vol. 93, p. 1379-1401.
9. **Pranter, M. J.**, \*M. F. Vargas, and T. L. Davis, 2008, Characterization and 3-D reservoir modeling of fluvial sandstones of the Williams Fork Formation, Rulison Field, Piceance Basin, Colorado, USA: Journal of Geophysics and Engineering, v. 5, p. 158-192.
8. **Pranter, M. J.**, \*A. I. Ellison, R. D. Cole, and P. E. Patterson, 2007, Modeling and analysis of intermediate-scale reservoir heterogeneity based on a fluvial point-bar outcrop analog, Williams Fork Formation, Piceance Basin, Colorado, USA: AAPG Bulletin, v. 91, p. 1025-1051.

7. **Pranter, M. J.**, \*\*Z. A. Reza, and D. A. Budd, 2006, Reservoir-scale characterization and multiphase fluid-flow modeling of lateral petrophysical heterogeneity within dolomite facies of the Madison Formation, Sheep Canyon and Lysite Mountain, Wyoming: *Petroleum Geoscience*, v. 12, p. 29-40.
6. Budd, D. A., **M. J. Pranter**, and \*\*Z. A. Reza, 2006, Lateral periodic variations in the petrophysical and geochemical properties of dolomite: *Geology*, v. 34, p. 373-376.
5. \*\*Reza, Z. A., **M. J. Pranter**, and P. Weimer, 2006, ModDRE: A program to model deepwater reservoir elements using geomorphic and stratigraphic constraints: *Computers & Geosciences*, v. 32, p. 1205-1220.
4. **Pranter, M. J.**, \*C. B. Hirstius, and D. A. Budd, 2005, Scales of lateral petrophysical heterogeneity within dolomite lithofacies as determined from outcrop analogs: Implications for 3-D reservoir modeling: *AAPG Bulletin*, v. 89, p. 645-662.
3. **Pranter, M. J.**, N. F. Hurley, and T. L. Davis, 2004, Anhydrite distribution within a shelf-margin carbonate reservoir: San Andres Formation, Vacuum Field, New Mexico, U.S.A.: *Petroleum Geoscience*, v., 10, p. 43-53.
2. **Pranter, M. J.**, N. F. Hurley, T. L. Davis, M. A. Raines, and S. C. Wehner, 2004, Dual-lateral horizontal wells successfully target bypassed pay in the San Andres Formation, Vacuum Field, New Mexico: *AAPG Bulletin*, v. 88, p. 99-113.
1. Bard, K. C. and **M. J. Pranter**, 1999, 4-D, multicomponent seismic tracks a miscible process: *Journal of Petroleum Technology*, vol. 51, p. 40-41.

#### **Refereed Book Chapters**

2. **Pranter, M. J.** and R. M. Slatt, 2006, Chapter 14, Deepwater Reservoir Modeling, *in* Weimer, P. and Slatt, R.M., Introduction to the Petroleum Geology of Deepwater Settings: AAPG Studies in Geology No. 57, p. 625-682.
1. **Pranter, M. J.**, N. F. Hurley, and T. L. Davis, 2004, Chapter 3, Sequence-stratigraphic, petrophysical, and multicomponent seismic analysis of a shelf-margin reservoir: San Andres Formation (Permian), Vacuum field, New Mexico, United States: *in* G. P. Eberli, J. L. Masferro, and J. F. Sarg, eds., Seismic Imaging of Carbonate Reservoirs and Systems: AAPG Memoir 81, p. 59-89.

#### **Non-Refereed Publications**

9. \*Miller, J. C., **M. J. Pranter**, and A. B. Cullen, 2019, Regional stratigraphy and organic richness of the Mississippian Meramec and associated strata, Anadarko Basin, central Oklahoma, *The Shale Shaker*, vol. 70, no. 2, p. 50-79.
8. Tellez, J. J., **M. J. Pranter**, and R. Cole, 2018, Application of UAV-based photogrammetry for outcrop characterization of fluvial deposits of the Burro Canyon Formation, Piceance Basin, Colorado: *The Outcrop*, v. 67, no. 3, May 2018
7. \*Shelley, S., G. M. Grammer, and **M. J. Pranter**, 2017, Reservoir characterization and modeling of a subsurface Meramec analog from a quarry in northeastern Oklahoma, *The Shale Shaker*, vol. 68, no. 5 (September/October), p. 224-243.

6. \*Gogri, M., \*J. Rohleder\*, \*S. Kabir, **M. Pranter**, and Z. Reza, 2017, Prognosis for safe water-disposal-well operations and practices based on reservoir flow modeling, SPE Annual Technical Conference and Exhibition, San Antonio, TX, October 2017.
5. \*Cronk, B., \*M. Gogri, \*J. Ortiz, \*S. Kalra, A. Cullen, Z. Reza, and **M. J. Pranter**, 2017, A unified and integrated approach for reservoir and fluid characterization using minimal production and well data for the Mississippian Meramec interval within the STACK play of Oklahoma, SPE Liquids-Rich Basins Conference-North America, Midland, Texas, September 2017.
4. **Pranter, M. J.**, \*\*Z. A. Reza, and P. Weimer, 2005, Deepwater reservoir modeling using sequence-stratigraphic and geomorphic constraints: Society of Petroleum Engineers, Annual Technical Conference Proceedings, SPE 95952, p. 1-11, Dallas, Texas.
3. Bard, K. C. and **M. J. Pranter**, 1999, Tracking miscible processes in the subsurface utilizing time-lapse shear-wave seismic data: Society of Petroleum Engineers, Annual Technical Conference Proceedings, SPE 56689, p. 1-14, Houston, Texas.
2. **Pranter, M. J.**, 1994, Patterson Lake field, Glasscock County, Texas: in Oil and gas fields in West Texas, Volume VI, West Texas Geological Society, p. 209-212.
1. **Pranter, M. J.** and R. C. Grayson, Jr., 1990, "Lower Strawn" submarine fan complex and associated depositional systems, in C. M. Gibbs, C. W. Reynolds, W. Tucker, and J. Ritchie, eds., Transactions of the 1990 AAPG Southwest Section Convention, p. 103-120.

***Short-Course Notes (unpublished)***

14. **Pranter M. J.**, 2019, 3-D reservoir modeling: AAPG-OU Student EXPO: March 2019, Norman, Oklahoma.
13. **Pranter M. J.**, 2018, Reservoir Characterization and Modeling: AAPG-OU Student EXPO: March 2018, Norman, Oklahoma.
12. **Pranter M. J.**, 2017, From Rocks to Models: Geological Reservoir Characterization and Modeling, September 2017, AAPG Mid-Continent Section Meeting, Oklahoma City, Oklahoma.
11. **Pranter M. J.**, and Z. Reza, 2017, From rocks to models: geological reservoir characterization and modeling: 2017 AAPG Annual Convention Short Course 8, Houston, Texas, 248 p.
10. **Pranter M. J.**, 2017, 3-D reservoir modeling: AAPG-OU Student EXPO: March 2017, Norman, Oklahoma.
9. **Pranter M. J.**, and L. Stright, 2016, From rocks to models: geological reservoir characterization and modeling: 2016 AAPG Annual Convention Short Course 9, Calgary, Canada, 376 p.
8. **Pranter M. J.**, 2016, 3-D reservoir modeling: AAPG / OU Student EXPO: March 2016, Norman, Oklahoma.
7. **Pranter M. J.**, 2016, Fundamentals of reservoir characterization and modeling: 2016 Bill Hailey Memorial Short Course, Short Course Notes, January 11 and 12, 2016, Abilene and Fort Worth, Texas, 194 p.

6. **Pranter M. J.**, 2015, From rocks to models: applied reservoir characterization and modeling: May 31, 2015, AAPG (EMD) Annual Convention Short Course 13, Denver, Colorado, 351 p.
5. **Pranter M. J.**, 2013, From rocks to models: applied reservoir characterization and modeling: December 9-13, 2013 for P.T. Geoservices, Bali, Indonesia.
4. **Pranter M. J.**, 2011, 2012, 2013, Reservoir Characterization Fundamentals Class for Marathon Oil Corporation: presented geology for reservoir characterization (Day 1), Houston, Texas.
3. **Pranter M. J.**, 2010, From rocks to models: reservoir geology for graduate students: 2010 AAPG Annual Convention, Short Course Notes, New Orleans, 376 p.
2. **Pranter M. J.** and N. F. Hurley, 2005, Rocks to models: an introduction to 3-D reservoir characterization and modeling: 2005 AAPG Eastern Section, Morgantown, West Virginia, 331 p.
1. **Pranter M. J.** and N. F. Hurley, 2004, Rocks to models: an introduction to 3-D reservoir characterization and modeling: 2004 AAPG Annual Convention, Dallas, Texas, 453 p.

### **Field Trip Guidebooks**

6. Cole, R. D. and **M. J. Pranter**, with contributions from Daniel Allen, Aya Attar, Tuba Evsan, Chelsea Fenn, John McFadden, Roger Miller, Ryan Sharma and Ellen Wilcox, 2013, Stratigraphic architecture and sedimentology of the middle and upper Williams Fork Formation fluvial system, 2013 RCML Piceance Basin Field Trip Guidebook, 116 p.
5. Cole, R. D. and **M. J. Pranter**, with contributions from Adel Aboktef, Patrick Boulas, Mark Gorenc, Ericka Harper, Kim Hlava, Gabriela Keeton, Jeremy Ring, Ali Sloan, and Beau Taylor, 2010, Stratigraphic architecture and reservoir characteristics of the Mesaverde Group: Application of outcrop-based concepts and statistics to the subsurface, western and northern Piceance Basin, Colorado, 2010 RCML Piceance Basin Field Trip Guidebook, 91 p.
4. Cole, R. D., **M. J. Pranter**, Steve Cumella, and Mark Kirschbaum, 2009, Iles-Williams Fork Field Trip, Southern Piceance Basin, Colorado, Grand Junction, Colorado, 2009 SEPM Field Trip Guidebook, 245 p.
3. Cole, R. D. and **M. J. Pranter**, 2008, Outcrop-based analysis and statistics for subsurface characterization of fluvial reservoir geometry and connectivity, Williams Fork Formation, Piceance Basin, Colorado, Grand Junction, Colorado, 2008 RCML Piceance Basin Field Trip Guidebook, 325 p.
2. Grayson, Jr., R. C., **M. J. Pranter**, L. L. Lambert, and G. K. Merrill, 1990, Carboniferous geology and tectonic history of the southern Fort Worth (foreland) basin, and Concho platform: 1990 GSA Field Trip Guidebook, Dallas Geological Society, 67 p.
1. **Pranter, M. J.**, 1988, Antelope Creek section, in R. C. Grayson, Jr. and G. K. Merrill, eds., Carboniferous geology of the northern Llano uplift, southern Fort Worth basin and Concho platform: Fort Worth Geological Society Field Trip Guidebook, 100 p.



**Published Abstracts for Technical Presentations**

98. Zhui, R., T. Phan, T. Bickley, Y. Zapata, J. D. Pigott, **M. J. Pranter**, and Z. Reza, 2019, Production analytics and decline curve analysis of the Bone Spring Formation and comparison with seismic: initial results, West Texas Geological Society Fall Symposium, September 2019.
97. Phan, T., R. Zhui, J. D. Pigott, **M. J. Pranter**, and Z. Reza, 2019, Critical insights on CO<sub>2</sub> huff-n-puff injection performance of hydraulically fractured wells in the Wolfcamp Formation in the Midland Basin, West Texas Geological Society Fall Symposium, September 2019.
96. Bickley, T., J. D. Pigott, H. Bedle, K. Pigott, R. Zhui, T. Phan, **M. J. Pranter**, and Z. Reza, 2019, High resolution 3D seismic-petrophysical sequence stratigraphy of the Bone Springs Formation, Northern Delaware Basin, West Texas Geological Society Fall Symposium, September 2019.
95. Morgan, H. M., **M. J. Pranter**, and R. Cole, 2019, Sedimentology, chemostratigraphy, and stratigraphic architecture of the Lower Cretaceous Burro Canyon Formation, Ninemile Hill, Colorado, AAPG Rocky Mountain Section Convention Program, Cheyenne, Wyoming, September 2019.
94. Tellez, J. J., **M. J. Pranter**, and R. Cole, 2019, Fluvial architecture and sequence stratigraphy of the Burro Canyon Formation using UAV-based outcrop models, southwestern Piceance Basin, Colorado, AAPG Rocky Mountain Section Convention Program, Cheyenne, Wyoming, September 2019.
93. Tellez, J. J., **M. J. Pranter**, and R. Cole, 2019, UAV-Based photogrammetry for facies architecture and fluvial sequence stratigraphic definition of the Burro Canyon Formation, Piceance Basin, Colorado, AAPG International Conference & Exhibition, Buenos Aires, Argentina, August 2019.
92. **Pranter, M. J.**, \*S. A. Clark, \*K. D. Lewis, \*J. J. Tellez, Z. A. Reza, and R. D. Cole, 2019, Characterizing fluvial architecture using UAV-based photogrammetry and outcrop-based modeling: implications for reservoir performance, southwestern Piceance Basin, Colorado, AAPG Annual Convention & Exhibition, San Antonio, TX. May 2019.
91. \*Lewis, K., **M. J. Pranter**, Z. Reza, and R. Cole, 2018, Outcrop characterization and modeling of fluvial tight-gas sandstones using drone-based photogrammetry, Burro Canyon Formation, northwest Colorado: implications for reservoir performance, Unconventional Resources Technology Conference, Houston, TX. July 2018.
90. \*Tellez, J. J., \*K. Lewis, \*S. Clark, R. Cole, **M. J. Pranter**, and Z. A. Reza, 2018, Exploring multi-scale heterogeneity of braided-fluvial reservoirs: implications for reservoir performance, AAPG Annual Convention & Exhibition, Salt Lake City, UT, May 2018.
89. \*Lewis, K., **M. J. Pranter**, Z. A. Reza, and R. D. Cole, 2018, Fluvial architecture of the Burro Canyon Formation using UAV-based photogrammetry: implications for reservoir performance, Rattlesnake Canyon, Colorado, AAPG Annual Convention & Exhibition, Salt Lake City, UT, May 2018.
88. \*Henglai, P., and **M. J. Pranter**, 2018, Parasequence stacking and facies control on reservoir quality and productivity of Early to Middle Miocene fluvial-deltaic deposits, Formation 2, Gulf of Thailand, AAPG Annual Convention & Exhibition, Salt Lake City, UT, May 2018.

87. \*Miller, J., A. Cullen, and **M. J. Pranter**, 2018, Regional stratigraphy and organic richness of Meramecian and equivalent strata, Anadarko Basin, central Oklahoma, AAPG Annual Convention & Exhibition, Salt Lake City, UT, May 2018.
86. \*Hickman, G., **M. J. Pranter**, Z. A. Reza, and A. Cullen, 2018, Reservoir characterization of the Mississippian Meramec and Osage Series of Canadian, Kingfisher, and Blaine Counties (STACK Trend), Oklahoma: relating reservoir characteristics to productivity, AAPG Annual Convention & Exhibition, Salt Lake City, UT, May 2018.
85. \*Gogri, M., \*G. Hickman, \*G. Machado, K. Marfurt, **M. Pranter**, and Z. Reza, 2018, History-matching and characterization of Arbuckle-Basement waste-water disposal system, Payne County, northern Oklahoma, SPE International Conference and Exhibition on Formation Damage Control, Lafayette, Louisiana.
84. Tellez, J. J., **M. J. Pranter**, and R. Cole, 2017, Application of UAV-Based Photogrammetry for Outcrop Characterization of Fluvial Deposits of the Burro Canyon Formation, Piceance Basin, Colorado, 7TH International Symposium on Hydrocarbon Accumulation Mechanism and Petroleum Resources Evaluation, Beijing, China, October 2017.
83. \*Cervantes Velazquez, A., **M. J. Pranter**, and K. J. Marfurt, 2017, Structural analysis of Upper Cretaceous Carbonates using curvature attributes, Campeche Sound, Gulf of Mexico, Search and Discovery Article #30522.
82. \*Senoglu, D., **M. J. Pranter**, and K. J. Marfurt, 2017, Stratigraphy, seismic characteristics, and reservoir properties of the Desmoinesian Granite Wash, Buffalo Wallow Field Area, Anadarko Basin, Texas, Search and Discovery Article #20380.
81. \*Suriamin, F., and **M. J. Pranter**, 2017, Lithofacies and pore-structure characterization of the mid-continent Mississippian Limestone, Grant Count, Oklahoma, AAPG Datapages/Search and Discovery Article #90309, AAPG Mid-Continent Section Meeting, Oklahoma City, Oklahoma, October 2017.
80. \*Machado, G., \*G. Hickman, \*M. Gogri, K. J. Marfurt, **M. J. Pranter**, and Z. A. Reza, 2017, Multidisciplinary geomechanical and geophysical characterization of the coupled Arbuckle-basement system, Payne County, Oklahoma, AAPG Datapages/Search and Discovery Article #90309, AAPG Mid-Continent Section Meeting, Oklahoma City, Oklahoma, October 2017.
79. \*Drummond, K., **M. J. Pranter**, and G. M. Grammer, 2017, Regional stratigraphy and proximal to distal variation of lithology and porosity within a mixed carbonate-siliciclastic system, Meramec and Osage Series (Mississippian), north-central Oklahoma, AAPG Datapages/Search and Discovery Article #90309, AAPG Mid-Continent Section Meeting, Oklahoma City, Oklahoma, October 2017.
78. \*Suriamin, F., and **M. J. Pranter**, 2017, Stratigraphic and facies control on porosity and pore types of Mississippian limestone and chert reservoirs: an example from north-central Oklahoma, AAPG Datapages/Search and Discovery Article #90309, AAPG Mid-Continent Section Meeting, Oklahoma City, Oklahoma, October 2017.
77. \*Wethington, N., and **M. J. Pranter**, 2017, Stratigraphic architecture of the Mississippian Limestone through integrated electrofacies classification, Hardtner Field Area, Kansas and Oklahoma, AAPG Datapages/Search and Discovery Article #90309, AAPG Mid-Continent Section Meeting, Oklahoma City, Oklahoma, October 2017.

76. \*Elium, E., G. M. Grammer, and **M. J. Pranter**, 2017, Combining sequence stratigraphy with artificial neural networks to enhance regional correlation and determination of reservoir quality in the “Mississippian Limestone” of the mid-continent, USA, Search and Discovery Article #42091, AAPG Annual Convention & Exhibition, Houston, TX, April 2017.
75. \*Cervantes Velazquez, A., **M. J. Pranter**, and K. J. Marfurt, 2017, Structural analysis of Upper Cretaceous Carbonates using curvature attributes, Campeche Sound, Gulf of Mexico, AAPG Annual Convention & Exhibition, Houston, TX, April 2017.
74. \*Obermeier, S. A., **M. J. Pranter**, Z. A. Reza, and R. D. Cole, 2017, Multi-scale analysis of fluvial architecture and facies of the Burro Canyon-Dakota formations using UAV-based outcrop photogrammetry and modeling – implications for reservoir performance, Escalante Canyon, Piceance Basin, Colorado, AAPG Annual Convention & Exhibition, Houston, TX, April 2017.
73. \*Machado, G., \*G. Hickman, \*M. Gogri, **M. J. Pranter**, K. J. Marfurt, and Z. A. Reza, 2017, Multidisciplinary Characterization of Geomechanical Properties and Flow Behavior of the Coupled Arbuckle-Baseament System, Payne County, Northern Oklahoma, AAPG Annual Convention & Exhibition, Houston, TX, April 2017.
72. \*Suriamin, F., and **M. J. Pranter**, 2017, Petrophysical properties from quantitative multiscale pore-structure characterization in unconventional carbonate reservoir: an example from the mid-continent Mississippian Limestone, Search and Discovery Article #80598, AAPG Annual Convention & Exhibition, Houston, TX, April 2017.
71. Tellez, J. J., and **M. J. Pranter**, 2016, Application of UAV-Based Photogrammetry for Outcrop Characterization of Fluvial Deposits of the Burro Canyon Formation, Piceance Basin, GTW, New Opportunities with Drones: New Needs, FAA Rule Changes, New Technologies, Houston, TX, December 2016.
70. \*Salantur, B., and **M. J. Pranter**, 2016, Granite Wash stratigraphy and reservoir geology, Elk City Field, Anadarko Basin, Oklahoma, AAPG Annual Convention, Calgary, Alberta, Canada, June, 2016.
69. \*Senoglu, D. E., **M. J. Pranter**, and K. M., Marfurt 2016, Stratigraphy, seismic characteristics, and reservoir properties of the Desmoinesian Granite Wash, Buffalo Wallow Field area, Anadarko Basin, Texas, AAPG Annual Convention, Calgary, Alberta, Canada, June, 2016.
68. \*Suriamin, Fnu, and **M. J. Pranter**, 2016, Investigation of petrophysical-property heterogeneity for electrofacies classification in carbonate reservoirs, AAPG Annual Convention, Calgary, Alberta, Canada, June, 2016.
67. \*Wethington, N. W., and **M. J. Pranter**, 2016, Stratigraphic controls on Mississippian Limestone reservoir quality through integrated electrofacies classification and seismic-constrained spatial statistics, Hardtner Field, south-central Kansas, AAPG Annual Convention, Calgary, Alberta, Canada, June, 2016.
66. \*Qi, X., \*J. Snyder, K. Marfurt, and **M. Pranter**, 2015, Correlation of seismic attributes and mechanical properties to rate of penetration in the Mississippi Lime, OK, AAPG Midcontinent Meeting, Tulsa, Oklahoma. (October 4, 2015).
65. \*Lindzey, K., and **M. Pranter**, 2015, Geologically constrained seismic characterization and 3-D reservoir modeling of Mississippian reservoirs, north-central Anadarko Shelf, Oklahoma, AAPG Midcontinent Meeting, Tulsa, Oklahoma, October 4, 2015.

64. \*Suriamin, F., and **M. Pranter**, 2015, Integrating standard petrophysical analysis with statistical measures of petrophysical heterogeneity to estimate petrofacies in Mississippian Carbonates, North-Central Oklahoma., AAPG Midcontinent Meeting, Tulsa, Oklahoma, October 4, 2015.
63. **Pranter, M.**, 2015, Multidisciplinary characterization and modeling of Mississippian carbonate and silica-rich reservoirs, northern Oklahoma, AAPG Midcontinent Meeting, Tulsa, Oklahoma, October 4, 2015.
62. \*Birch, C., and **M. Pranter**, 2015, Reservoir-scale stratigraphy, sedimentology, and porosity characteristics of Mississippian reservoirs, northeastern Anadarko Shelf, Oklahoma, AAPG Midcontinent Meeting, Tulsa, Oklahoma, October 4, 2015.
61. \*Turnini, A., and **M. Pranter**, 2015, Stratigraphic and structural controls on Mississippian Limestone and tripolitic chert reservoir distribution using seismic-constrained reservoir characterization and modeling, northern Oklahoma, AAPG Midcontinent Meeting, Tulsa, Oklahoma, October 4, 2015.
60. \*Karis, A., and **M. Pranter**, 2015, Stratigraphy and reservoir characteristics of the Desmoinesian Granite Wash (Marmaton Group), southern Anadarko Basin, AAPG Midcontinent Meeting, Tulsa, Oklahoma, October 4, 2015.
59. \*Holmes, C., **M. Pranter**, D. Jordan, 2015, Core-calibrated stratigraphic architecture and facies distribution of the Colony Granite Wash, Anadarko Basin, Oklahoma, AAPG Midcontinent Meeting, Tulsa, Oklahoma, October 4, 2015.
58. \*Birch, C. B., and **M. J. Pranter**, 2015, Reservoir-scale stratigraphy, sedimentology and porosity characteristics of Mississippian reservoirs, northeastern Anadarko Shelf, Oklahoma, AAPG Annual Convention and Exhibition, Denver, Colorado, May 31-June 3, 2015.
57. \*Holmes, C. D., **Pranter, M. J.**, and D. W. Jordan, 2015, Stratigraphic architecture, facies distribution, and reservoir characteristics of the Colony Granite Wash, Anadarko Basin, Oklahoma, AAPG Annual Convention and Exhibition, Denver, Colorado, May 31-June 3, 2015.
56. \*Karis, A. M., and **M. J. Pranter**, 2015, Stratigraphy and reservoir characteristics of the Desmoinesian Granite Wash, Southern Anadarko Basin, AAPG Annual Convention and Exhibition, Denver, Colorado, May 31-June 3, 2015.
55. \*Lindzey, K. M., and **M. J. Pranter**, 2015, Geologically constrained seismic characterization and 3-D reservoir modeling of Mississippian reservoirs, north-central Anadarko Shelf, Oklahoma, AAPG Annual Convention and Exhibition, Denver, Colorado, May 31-June 3, 2015.
54. **Pranter, M. J.**, 2014, Fluvial architecture and connectivity of the Williams Fork Formation, Piceance Basin, Colorado: combining outcrop analogs and reservoir modeling for stratigraphic reservoir characterization, Oklahoma City Geological Society, January 15, 2014 and Tulsa Geological Society, February 25, 2014.
53. \*Fenn, C., and **M. J. Pranter**, 2014, Outcrop to subsurface reservoir characterization of the lower Mesaverde Group, Red Wash Field, Uinta Basin and Douglas Creek Arch, Utah and Colorado, AAPG Annual Convention and Exhibition, Houston, Texas, April 6-9, 2014.

52. \*Evsan, T., **M. J. Pranter**, and M. Connolly, 2014, Geological controls on formation water salinity distribution, southeastern Greater Natural Buttes Field, Uinta Basin, Utah, AAPG Annual Convention and Exhibition, Houston, Texas, April 6-9, 2014.
51. \*Allen, D. and **M. J. Pranter**, 2014, Geologically constrained electrofacies classification of fluvial deposits: an example from the Cretaceous Mesaverde Group, Uinta and Piceance basins, AAPG Annual Convention and Exhibition, Houston, Texas, April 6-9, 2014.
50. \*Evsan, T., **M. J. Pranter**, and M. Connolly, 2013, Geological controls on formation water salinity distribution, southeastern Greater Natural Buttes Field, Uinta Basin, Utah, AAPG International Conference & Exhibition, Istanbul, Turkey, September 14-17, 2014.
49. \*Evsan, T., M. Connolly, and **M. J. Pranter**, 2013, Geological controls on formation water salinity distribution, southeastern Greater Natural Buttes Field, Uinta Basin, Utah, AAPG Rocky Mountain Section Meeting, Salt Lake City, Utah, September 22-24, 2013.
48. \*Sharma, R., **M. J. Pranter**, and R. D. Cole, P. E. Patterson, 2013, Sedimentology and fluvial architecture of the upper Williams Fork Formation, Plateau Creek Canyon, Piceance Basin, Colorado, AAPG Rocky Mountain Section Meeting, Salt Lake City, Utah, September 22-24, 2013.
47. \*El Attar, A., **M. J. Pranter**, and M. Connolly, 2013, Regional stratigraphy, elemental chemostratigraphy, and organic richness of the Niobrara Formation, Piceance Basin, Colorado, AAPG Rocky Mountain Section Meeting, Salt Lake City, Utah, September 22-24, 2013.
46. \*McFadden, J., **M. J. Pranter**, and R. D. Cole, 2013, Reservoir-scale facies and stratigraphic architecture of the middle and upper Williams Fork Formation, upper Philadelphia Creek, Douglas Creek Arch, Colorado, AAPG Rocky Mountain Section Meeting, Salt Lake City, Utah, September 22-24, 2013.
45. \*Allen, D., and **M. J. Pranter**, 2013, Geologically constrained electrofacies classification of fluvial deposits: an example from the Cretaceous Mesaverde Group, Uinta and Piceance basins, AAPG Rocky Mountain Section Meeting, Salt Lake City, Utah, September 22-24, 2013.
44. **Pranter, M. J.**, \*J. A. Sloan, R. D. Cole, H. Meng, and J. Gilman, 2012, Fluvial architecture and connectivity of the Williams Fork Formation: combining outcrop analogs and reservoir modeling for stratigraphic reservoir characterization, AAPG Rocky Mountain Section Convention Program, Grand Junction, Colorado.
43. \*Keeton, G. I., **M. J. Pranter**, E. R. (Gus) Gustason, R. D. Cole, 2012, Characterization of fluvial sandstones based on outcrop gamma-ray data and borehole images, Williams Fork Formation, Piceance Basin, Colorado, AAPG Rocky Mountain Section Convention Program, Grand Junction, Colorado and AAPG Search and Discovery Article #90156.
42. \*Boulas, P., \*K. S. Hlava, **M. J. Pranter**, and R. D. Cole, 2012, A tale of two point bars: inclined heterolithic strata and reservoir compartmentalization, Piceance Basin, Colorado, AAPG Rocky Mountain Section Convention Program, Grand Junction, Colorado.
41. \*Harper, E., R. D. Cole, and **M. J. Pranter**, 2012, Fluvial architecture of the lower Williams Fork Formation (Middle Mesaverde Group), Douglas Creek Arch, Colorado, AAPG Rocky Mountain Section Convention Program, Grand Junction, Colorado.

40. \*Hlava, K. S., **M. J. Pranter**, and R. D. Cole, 2012, Sequence-stratigraphic controls on reservoir-scale architecture of the middle Mesaverde Group, Douglas Creek Arch, Colorado, AAPG Rocky Mountain Section Convention Program, Grand Junction, Colorado.
39. \*Shaak, R. V., **M. J. Pranter**, and E. R. (Gus) Gustason, 2012, Stratigraphic architecture and preservation of shallow-marine parasequences: lower Williams Fork Formation, southeastern Piceance Basin, Colorado, AAPG Rocky Mountain Section Convention Program, Grand Junction, Colorado.
38. \*Rybowiak, C., and **M. J. Pranter**, 2012, Assessment of scale on permeability estimates in late Cretaceous reservoirs, Denver, Basin, Colorado, AAPG Rocky Mountain Section Convention Program, Grand Junction, Colorado.
37. \*Keeton, G. I., **M. J. Pranter**, E. R. (Gus) Gustason, R. D. Cole, 2012, Characterization of fluvial sandstones based on outcrop gamma-ray data and borehole images, Williams Fork Formation, Piceance Basin, Colorado, AAPG Annual Convention and Exhibition, Long Beach, California, April 22-25, 2012.
36. \*Rybowiak, C., and **M. J. Pranter**, 2012, Assessment of scale on permeability estimates in late Cretaceous reservoirs, Denver, Basin, Colorado, AAPG Annual Convention and Exhibition, Long Beach, California, April 22-25, 2012 and Search and Discovery Article #50617.
35. Cole, R. D. and **M. J. Pranter**, 2011, Coastal- and alluvial-plain architectural elements of the Upper Cretaceous Williams Fork Formation, southeastern Piceance Basin, Colorado: outcrop analogs for subsurface reservoir characterization, AAPG Rocky Mountain Section Convention Program, p. 32, Cheyenne, Wyoming.
34. \*Shaak, R. V., **M. J. Pranter**, and E. R. Gustason, 2011, Stratigraphic architecture of shallow-marine to coastal-plain parasequences: lower Williams Fork Formation, southeastern Piceance Basin, Colorado, AAPG Annual Convention Program, v. 19, Houston, Texas.
33. \*Aboktef, A. M., **M. J. Pranter**, and D. A. Budd, 2011, Sequence-stratigraphic controls on sandstone diagenesis: An example from the Williams Fork Formation, Piceance Basin, Colorado, AAPG Annual Convention Program, v. 19, Houston, Texas.
32. \*Sloan, J. A., and **M. J. Pranter**, 2011, Stratigraphic characterization and modeling of fluvial deposits of the lower Williams Fork Formation combining outcrop analogs and multipoint statistical simulation (MPS), Grand Valley Field, Piceance Basin, Colorado, AAPG Annual Convention Program, v. 19, Houston, Texas.
31. \*Harper, E. S., \*K. S. Hlava, R. D. Cole, and **M. J. Pranter**, 2011, Stratigraphic variability of coastal-plain and marginal-marine deposits of the Middle Mesaverde Group, Douglas Creek Arch, Colorado, AAPG Annual Convention Program, v. 19, Houston, Texas.
30. \*Hewlett, A. C., **M. J. Pranter**, and S. P. Cumella, 2010, Stratigraphic architecture, reservoir quality, and sandstone-body connectivity of the Mesaverde Group, central Mamm Creek Field, Piceance Basin, Colorado, AAPG Annual Convention Program, v. 19, New Orleans, Louisiana.
29. \*Haynie, J., **M. J. Pranter**, and G. M. Grammer, 2009, Characterization and modeling of petrofacies and pore-volume distribution within a gas-storage reservoir, Ray Reef Field, southern Michigan Basin, Michigan, AAPG Annual Convention Program, v. 18, Denver, Colorado.

28. **Pranter, M. J.**, R. D. Cole, and \*B. Binford, 2009, Analysis and modeling of fluvial sandstone-body architecture and heterogeneity in the Cameo interval of the lower Williams Fork Formation in Coal Canyon, Southwestern Piceance Basin, Colorado, AAPG Annual Convention Program, v. 18, Denver, Colorado.
27. \*Binford, B., R. D. Cole, and **M. J. Pranter**, 2009, Stratigraphic architecture and connectivity of high-sinuosity fluvial sandstone bodies in Coal Canyon, Colorado with subsurface comparison to Grand Valley Field, AAPG Annual Convention Program, v. 18, Denver, Colorado.
26. Cole, R. D., and **M. J. Pranter**, 2009, Detailed architectural analysis of two point-bar complexes in the Cameo interval of the lower Williams Fork Formation from "Hoodoo Hill," southwestern Piceance Basin, Colorado, AAPG Annual Convention Program, v. 18, Denver, Colorado.
25. \*Harper, E., R. D. Cole, and **M. J. Pranter**, 2009, Dimensions of fluvial geobodies in the middle Williams Fork Formation (Late Cretaceous), Main Canyon, Colorado, AAPG Annual Convention Program, v. 18, Denver, Colorado.
24. Cole, R. D., and **M. J. Pranter**, 2008, Stratigraphic variability of sandstone-body dimensions in the Williams Fork Formation: outcrop data from the southwest Piceance Basin, Colorado, RMS-AAPG Convention Program, p. 82, Denver, Colorado.
23. \*Sommer, N. K., **M. J. Pranter**, and R. D. Cole, 2008, Sandstone-body connectivity in a meandering-fluvial system: an example from the Williams Fork Formation, Piceance Basin, Colorado, RMS-AAPG Convention Program, p. 118-119, Denver, Colorado.
22. **Pranter, M. J.**, \*N. K. Sommer, \*H. Panjaitan, \*Q. A. German, R. D. Cole, N. F. Hurley, and D. S. Anderson, 2007, Fluvial sandstone-body dimensions and reservoir connectivity within a meandering to braided system: an example from the Williams Fork Formation, Piceance Basin, Colorado, AAPG Annual Convention Program, v. 16, Long Beach, California.
21. \*Sommer, N. K., **M. J. Pranter**, and R. D. Cole, 2007, Architectural-element modeling and connectivity analysis of the Williams Fork Formation, Coal Canyon, Main Canyon, and Plateau Creek Canyons, Piceance Basin, Colorado, U.S.A., AAPG Annual Convention Program, v. 16, Long Beach, California.
20. \*Sommer, N., \*Q. A. German, **M. J. Pranter**, and R. D. Cole, 2006, Analysis of fluvial sand-body characteristics and dimensions in a high net-to-gross system, Upper Williams Fork Formation, Main and Plateau Creek Canyons, Piceance Basin, Colorado, AAPG Rocky Mountain Section Convention Program, Billings, Montana.
19. \*German, Q. A., **M. J. Pranter**, and R. D. Cole, 2006, Analysis of fluvial sand-body characteristics and connectivity in a high net-to-gross system, Upper Williams Fork Formation, Plateau Creek Canyon, Piceance Basin, Colorado, AAPG Annual Convention Program, v. 15, p. 37, Houston, Texas.
18. Budd, D. A. and **M. J. Pranter**, 2006, Diagenetic origins of lateral periodic variations in the properties of dolomite: evidence of self-organizing phenomena?, AAPG Annual Convention Program, v. 15, p. 15, Houston, Texas.
17. \*Vargas, M. F., **M. J. Pranter**, and T. L. Davis, 2006, Characterization and 3-D reservoir modeling of fluvial tight-gas sandstones in the Williams Fork Formation, Rulison Field, Piceance Basin, Colorado, USA, AAPG Annual Convention Program, v. 15, p. 110, Houston, Texas.

16. **Pranter, M. J.**, D. A. Budd, and **Z. A. Reza**, 2005, Reservoir-scale characterization and modeling of lateral petrophysical and geochemical variability within dolomite facies of the Madison Formation, Sheep Canyon and Lysite Mountain, Wyoming: in Peter Lufholm and Denise Cox (eds.), Unconventional Reservoirs Technology and Strategies, Alternative Perspectives for the Permian Basin, WTGS Publication #05-115, p. 193-196, WTGS 2005 Fall Symposium, Midland, Texas.
15. Budd, D. A. and **M. J. Pranter**, 2005, The hidden world of dolomites: self-organization of porosity and permeability at the decameter scale during dolomitization, AAPG Annual Convention Program, v. 14, p. A20, Calgary, Alberta, Canada.
14. **Pranter, M. J.**, **Z. A. Reza**, and P. Weimer, 2005, A novel integrated approach to stochastic deepwater reservoir modeling using sequence-stratigraphic and geomorphic constraints, AAPG Annual Convention Program, v. 14, p. A112, Calgary, Alberta, Canada.
13. **Pranter, M. J.** and **Z. A. Reza**, 2005, Use of outcrop analogs to assess the impact of lateral petrophysical cyclicity on static connectivity and fluid flow within dolomite reservoirs, AAPG Annual Convention Program, v. 14, p. A112, Calgary, Alberta, Canada.
12. **Pranter, M. J.** and D. A. Budd, 2004, Evidence for geochemical self-organization at the decameter scale during dolomitization, Geological Society of America, Abstracts with Programs, v. 36, p. 252, Denver, Colorado.
11. **Ellison, A. I.**, **M. J. Pranter**, R. Cole, and P. E. Patterson, 2004, Quantification of stratigraphic heterogeneity within a fluvial point-bar sequence, Williams Fork Formation, Piceance Basin, Colorado: Application to reservoir modeling, AAPG Rocky Mountain Natural Gas Conference, p. 100, Denver, Colorado.
10. Davis, T. L., R. D. Benson, and **M. J. Pranter**, 2004, Time-lapse seismic investigation - Rulison Field, Piceance Basin, Colorado, AAPG Rocky Mountain Natural Gas Conference, p. 98, Denver, Colorado.
9. **Ellison, A. I.**, **M. J. Pranter**, R. Cole, and P. E. Patterson, 2004, Anatomy of a point bar: outcrop modeling using lidar data of the Upper Cretaceous Williams Fork Formation, Piceance Basin, Colorado, AAPG Annual Convention Program, v. 13, p. 40, Dallas, Texas.
8. **Hirstius, C. B.**, **M. J. Pranter**, and D. A. Budd, 2004, Scales of lateral petrophysical heterogeneity within dolomite rock fabrics as determined from outcrop analogs: Implications for 3-D reservoir modeling, AAPG Annual Convention Program, v. 13, p. 63-64, Dallas, Texas.
7. **Hirstius, C. B.**, **M. J. Pranter**, and D. A. Budd, 2004, Characterization and modeling of multiple scales of lateral petrophysical heterogeneity within dolomite rock fabrics as determined from outcrop analogs, in, C. Feazel, A. Byrnes, J. Honefenger, B. Leibrecht, B. Loucks, S. McCants, and A. Saller, eds., Carbonate Reservoir Characterization and Simulation: From Facies to Flow Units: Proceedings, American Association of Petroleum Geologists Hedberg Conference, March 15-18, 2004, El Paso, Texas.
6. **Pranter, M. J.**, and N. F. Hurley, 2004, Flow unit definition for reservoir simulation, in, C. Feazel, A. Byrnes, J. Honefenger, B. Leibrecht, B. Loucks, S. McCants, and A. Saller, eds., Carbonate Reservoir Characterization and Simulation: From Facies to Flow Units: Proceedings, American Association of Petroleum Geologists Hedberg Conference, March 15-18, 2004, El Paso, Texas.



5. \*Ellison, A. I., **M. J. Pranter**, R. Cole, and P. E. Patterson, 2003, Stratigraphic architecture of the Upper Cretaceous Williams Fork Formation, Piceance Basin, Western Colorado through outcrop studies and high-resolution lidar imaging, Geological Society of America, Abstracts with Programs, v. 35, p. 35., Seattle, Washington.
4. \*Hirstius, C. B., **M. J. Pranter**, and D. A. Budd, 2003, Lateral petrophysical variability within dolomite rock fabrics: Implications for petrophysical characterization and modeling, Geological Society of America, Abstracts with Programs, v. 35, p. 55., Seattle, Washington.
3. \*Ellison, A. I., **M. J. Pranter**, R. Cole, P. E. Patterson, and S. Cumella, 2003, Analysis and modeling of stratigraphic architecture of the Upper Cretaceous Williams Fork Formation, Piceance Basin, Western Colorado, through outcrop studies and high-resolution lidar imaging, RMAG Piceance Basin Symposium, Glenwood Springs, Colorado.
2. **Pranter, M. J.**, N. F. Hurley, T. L. Davis, L. Duranti, M. A. Raines, and S. C. Wehner, 1999, Identification of subtle faults using 3-D seismic and multilateral borehole profiles: AAPG/SPWLA Hedberg Research Symposium Abstracts, Horizontal wells: focus on the reservoir, p. 86.
1. **Pranter, M. J.**, and N. F. Hurley, 1999, Use of a petrophysical-based reservoir zonation and time-lapse, multicomponent (4-D, 3-C) seismic attributes for improved geologic modeling: 1999 AAPG Annual Convention, Program and Abstracts, vol. 8, p. A112.

#### **Invited Colloquia / Talks / Short Courses**

24. Oklahoma State University, Stillwater, Oklahoma: “Characterizing fluvial architecture using UAV-based photogrammetry and outcrop-based modeling: implications for reservoir performance, southwestern Piceance Basin, Colorado” (August 2018)
23. AAPG Mid-Continent Section Meeting, Oklahoma City, Oklahoma: “From rocks to models: geological reservoir characterization and modeling” (September 2017)
22. Bill Hailey Memorial Short Course, AAPG, Southwest Section, Fort Worth, Texas: “Fundamentals of reservoir characterization and modeling” (January 2016)
21. Bill Hailey Memorial Short Course, AAPG, Southwest Section, Abilene, Texas: “Fundamentals of reservoir characterization and modeling” (January 2016)
20. Tulsa Geological Society, Tulsa, Oklahoma: “Fluvial architecture and connectivity of the Williams Fork Formation, Piceance Basin, Colorado: combining outcrop analogs and reservoir modeling for stratigraphic reservoir characterization” (February 2014)
19. North Texas Geological Society, Wichita Falls, Texas: “Fluvial architecture and connectivity of the Williams Fork Formation, Piceance Basin, Colorado: combining outcrop analogs and reservoir modeling for stratigraphic reservoir characterization” (February 2014)
18. Oklahoma City Geological Society, Oklahoma City, Oklahoma: “Fluvial architecture and connectivity of the Williams Fork Formation, Piceance Basin, Colorado: combining outcrop analogs and reservoir modeling for stratigraphic reservoir characterization” (January 2014)
17. Penrose Conference on Geothermal Reservoirs (Geological Society of America SedHeat Workshop): “Integrating outcrop analogs and subsurface data for mapping basin- and reservoir-scale properties:

an assessment of the fluvial architecture, reservoir quality, and connectivity of the Cretaceous Williams Fork Formation, Piceance Basin, Colorado” (October 2013)

16. Oklahoma State University, Stillwater, Oklahoma: “Fluvial architecture and connectivity of the Williams Fork Formation: combining outcrop analogs and reservoir modeling for stratigraphic reservoir characterization” (August 2013)
15. University of Oklahoma, Norman, Oklahoma: “Fluvial architecture and connectivity of the Williams Fork Formation: combining outcrop analogs and reservoir modeling for stratigraphic reservoir characterization” (April 2012)
14. Petrel Users Group, Schlumberger, Greenwood Village, Colorado: “Fluvial deposits and the Williams Fork Consortium” (June 2011)
13. Colorado School of Mines AAPG Student Chapter: “Stratigraphic characterization and modeling of coastal-plain and marginal-marine deposits of the Williams Fork Formation (Mesaverde Group), Piceance Basin, Colorado” (December 2010)
12. EnCana Oil & Gas (USA) Inc., Denver, Colorado: “Sandstone-body dimensions and connectivity in a lower coastal-plain depositional setting: lower Williams Fork Formation, Coal Canyon, Piceance Basin, Colorado” (June 2010)
11. EnCana Oil & Gas (USA) Inc., Dallas, Texas: “Sandstone-body dimensions and connectivity in a lower coastal-plain depositional setting: lower Williams Fork Formation, Coal Canyon, Piceance Basin, Colorado” (June 2010)
10. ExxonMobil Upstream Research Company, Houston, Texas: “Stratigraphic variability and "field-scale" architecture of fluvial sandstone bodies of the Williams Fork Formation” (May 2010)
9. Anadarko Corporation, Denver, Colorado: “Stratigraphy and reservoir characteristics of the Williams Fork Formation, Piceance Basin, Colorado” (February 2009)
8. Colorado Energy Research Institute, Golden, Colorado: “Use of outcrop analogs for reservoir characterization and modeling” (February 2008)
7. Shell Technical Symposium, Houston, Texas: “Use of outcrop analogs to assess the impact of lateral petrophysical cyclicity on static connectivity and fluid flow within dolomite reservoirs” (June 2006)
6. Western Michigan University, Department of Geological Sciences, Kalamazoo, Michigan: “Reservoir-scale characterization and modeling of lateral petrophysical variability within dolomite facies of the Madison Formation, Sheep Canyon and Lysite Mountain, Wyoming” (February 2006)
5. Petroleum Geology Seminar Series, Colorado School of Mines, Department of Geology and Geological Engineering, Golden, Colorado: “Characterization of lateral petrophysical variability within dolomite facies of the Madison Formation, Sheep Canyon and Lysite Mountain, Wyoming: significance for reservoir modeling” (November 2005)
4. Society for Sedimentary Geology, Rocky Mountain Section Luncheon, Denver, Colorado: “Numerical modeling of heterogeneity within a fluvial point-bar deposit using outcrop and lidar data: Williams Fork Formation, Piceance Basin, Colorado” (October 2004)

3. Colorado School of Mines, Department of Geophysics, Golden, Colorado: “Characterization and modeling of fluvial sandstone distribution and static connectivity: Williams Fork Formation, Piceance Basin, Colorado” (October 2004)
2. Colorado State University, Department of Geological Sciences Colloquium, Fort Collins, Colorado: “Use of outcrop analogs to characterize and model stratigraphic and petrophysical variability – their role in 3-D reservoir modeling” (November 2003)
1. University of Wyoming, Department of Geology and Geophysics Colloquium, Laramie, Wyoming: “Rocks to models: Reservoir characterization and 3-D geologic modeling, examples and direction” (February 2002)

## GRANTS / CONSORTIA

Total funding as Sole PI or Lead PI: \$1,168,875  
 Total funding as Co-PI or Collaborator: \$976,431  
 Total funding (to date): \$2,145,306

### Current Grants / Consortia

#### **Mississippian Meramec Research Grant**

“Reservoir characterization in unconventional oil and gas reservoirs”

September 1, 2017 - December 31, 2019

Dr. Carl Sondergeld, Lead PI, **Dr. Matthew J. Pranter**, Dr. Chandra Rai, Dr. Deepak Devegowda,  
 Dr. Kurt Marfurt, Dr. Tinni Ousseini, Co-PIs

\$2,000,000 (\$400,000 to Pranter)

(Marathon Oil Company)

#### **McCoy Research Grant**

“Delaware Basin Bone Spring sweet spot prediction through basin-reservoir modeling”

January 1- December 31, 2019

Dr. John Pigott, **Dr. Matthew J. Pranter**, Dr. Zulfiqar A. Reza, Co-PIs

\$60,000 (\$20,000 to Pranter)

(OU College of Earth and Energy)

### Past Grants / Consortia

#### *Grants Funded as Sole-PI or Lead-PI*

#### **OU Mississippi Lime Consortium**

“Stratigraphic, structural, and diagenetic controls on heterogeneity and productivity of Mississippian carbonate, tripolite, and associated reservoirs of the midcontinent”

June 1, 2013 - August 31, 2015

**Dr. Matthew J. Pranter, Lead PI**, Dr. Kurt Marfurt, Co-PI

\$320,000 (\$160,000 to Pranter)

(4 Industry Sponsors: Chesapeake Energy, Devon Energy, QEP Resources, Tiptop Energy/Sinopec)

### **OU Granite Wash Consortium**

“Multidisciplinary reservoir characterization and modeling of the Pennsylvanian "Granite Wash", Anadarko Basin - stratigraphic, structural, and diagenetic controls on reservoir distribution and productivity”

June 1, 2013 - August 31, 2015

**Dr. Matthew J. Pranter, Lead PI**, Dr. Kurt Marfurt, Co-PI

\$110,000 (\$55,000 to Pranter)

(4 Industry Sponsors: Chesapeake Energy, Devon Energy, QEP Resources, SM Energy)

### **RCML Williams Fork Consortium Phase 6**

“Stratigraphic architecture and sedimentology of the middle and upper Williams Fork Formation fluvial system: Douglas Creek Arch and Piceance Basin, Colorado”

June 1, 2011 - May 31, 2013

**Dr. Matthew J. Pranter, Lead PI**; Dr. Rex D. Cole, Co-PI

\$240,000 (\$235,000 to Pranter; \$5,000 to Cole)

(10 Industry Sponsors: Anadarko, Chevron, ExxonMobil, Fugro-Jason, IHS, iReservoir, OXY, Suncor Energy, Schlumberger, Williams)

### **RCML Williams Fork Consortium Phase 5**

“Stratigraphic architecture and reservoir characteristics of the Mesaverde Group: Application of outcrop-based concepts and statistics to the subsurface, western and northern Piceance Basin, Colorado”

May 1, 2009 - August 31, 2012

**Dr. Matthew J. Pranter, Lead PI**; Dr. Rex D. Cole, Co-PI

\$400,000 (\$348,875 to Pranter; \$51,125 to Cole)

(16 Industry Sponsors: Anadarko, Bill Barrett, Chevron, ConocoPhillips, El Paso, ExxonMobil, Fugro-Jason, Gunnison, IHS, iReservoir, Marathon, Newfield, OXY, Suncor Energy, Schlumberger, Williams)

### **RCML Williams Fork Consortium Phase 4**

“From rocks to models: outcrop-based analysis and statistics for subsurface characterization of fluvial reservoir geometry and connectivity, Williams Fork Formation, Piceance Basin, Colorado, U.S.A.”

May 2007 - May 2011

**Dr. Matthew J. Pranter, Lead PI**; Dr. Rex D. Cole, Co-PI

\$200,000 total funding, (\$190,000 to Pranter; \$10,000 to Cole)

(12 Industry Sponsors: Anadarko, Bill Barrett Corp., Chevron, ConocoPhillips, ExxonMobil, IHS, Marathon, OXY, Shell, Suncor Energy, Schlumberger, Williams)

### **AVID Consortium Phase I**

“Analysis of variability in dolomites, origin and implications for 3-D reservoir modeling”

April 2005 - March 2007

**Dr. Matthew J. Pranter, Lead PI**; Dr. David A. Budd, Co-PI

\$60,000 total funding, (\$30,000 to Pranter; \$30,000 to Budd)

(3 Industry Sponsors: ConocoPhillips, ExxonMobil, Shell)

### **RCML Williams Fork Consortium Phase 3**

“Stratigraphic architecture, reservoir characteristics, and 3-D outcrop modeling using high-resolution laser imaging (LiDAR), Williams Fork Formation of the Mesaverde Group, Piceance Basin, Colorado”

May 2004 - April 2006

**Dr. Matthew J. Pranter, Lead PI**; Dr. Rex D. Cole and Dr. Neil F. Hurley, Co-PIs

\$120,000 total funding, (\$115,000 to Pranter; \$5000 to Cole)

(12 Industry Sponsors: Bill Barrett Corp., Chevron Thailand, ConocoPhillips, Dominion, EnCana, ExxonMobil, Hydro, Kerr McGee, Marathon, OXY, PetroCanada, Williams; 1 In-Kind Sponsor: Merrick & Company, donated ~\$8000 in software)

**Petroleum Research Fund – Type G**

“Quantification of fluvial stratigraphic architecture using high-resolution laser imaging (LiDAR), Williams Fork Formation, Colorado: implications for 3-D reservoir modeling”

January 2005 - August 2007

**Dr. Matthew J. Pranter, Sole PI**

\$35,000 total funding

**Grants Funded as Co-PI or Collaborator**

**State of Oklahoma Research Grant**

“Geological characteristics, reservoir properties, and geomechanical and flow behavior of the coupled Arbuckle-basement system in northern Oklahoma”

May 2016 - May 2019

Dr. Zulfiquar Reza, Lead PI, **Dr. Matthew J. Pranter** and Dr. Kurt Marfurt, Co-PIs

\$120,000 (\$40,000 to Pranter)

(State of Oklahoma)

**U.S. Department of Energy -**

**National Energy Technology Laboratory (NETL) Project**

**Geological Carbon Sequestration – Basic Research**

(DE-FE-0000730)

“CO<sub>2</sub> saline storage demonstration in Colorado sedimentary basins - applied studies in reservoir assessment and dynamic processes affecting industrial operations: Task 6 - Assessment of scale on permeability estimates for geologic storage of CO<sub>2</sub> in saline aquifers and depleted petroleum reservoirs”

August 2009 – September 2012

Dr. Kevin L. Doran, Lead PI; **Dr. Matthew J. Pranter, Co-PI**

\$369,546 total funding; (\$123,187 to Pranter)

**Research Partnership to Secure Energy for America (RPSEA) -**

**Piceance Basin Project**

“Stratigraphic architecture, connectivity, and static reservoir modeling of tight-gas sandstones”

September 2008 - May 2011

Dr. Dag Nummedal (Colorado Energy Research Institute), Lead PI; **Dr. Matthew J. Pranter, Co-PI**

\$3,800,000 total funding; (\$333,244 to Pranter)

**AVID Consortium - Phase II**

“Analysis of variability in dolomites: origin(s)”

May 2007 – April 2009

Dr. David A. Budd, Lead PI; **Dr. Matthew J. Pranter, Co-PI**

\$60,000 total funding, (\$30,000 to Budd, \$30,000 to Pranter)

(3 Industry Sponsors: ConocoPhillips, ExxonMobil, Shell)

**U.S. Department of Energy -**

**National Energy Technology Laboratory (NETL) Project**

(DE-FG26-04NT15513)

“Reservoir facies, architecture, and petrophysics of Niagaran (Silurian) reef reservoirs, an example from Ray Reef Field, Michigan Basin”

May 2006 – April 2008

Dr. G. Michael Grammer, Lead PI; **Dr. Matthew J. Pranter, Co-PI**

\$20,000 total funding

(Collaboration on DOE-NETL Grant to Dr. G. Michael Grammer, Western Michigan University)

#### **Lewis Shale Consortium**

“Three-dimensional modeling of the Lewis Shale, Eastern Green River Basin, Wyoming”

June 2004 - May 2005

Dr. Neil F. Hurley, Lead PI; **Dr. Matthew J. Pranter, Co-PI**

\$10,000 total funding

(Collaboration on Industry Sponsored Consortium to Dr. Neil Hurley, Colorado School of Mines)

### **In-Kind Contributions**

#### **In-Kind Software Contributions**

Acquired software/data donations to the University of Oklahoma and University of Colorado Boulder for reservoir analysis, mapping, and numerical modeling. These high-end software packages include PETREL, GeoGraphix, Pix4Dmapper, IRAP-RMS, GOCAD, ECLIPSE, Kingdom Suite+, PETRA, Enerdeq, PetraSeis, PowerLog, EMERGE, and ISMap.

### **Research Consortia Meetings**

#### **Mississippian Meramec Research Grant Research Meetings**

“Reservoir characterization in unconventional oil and gas reservoirs”

Presented results-to-date to numerous representatives from Marathon Oil Company;

May 3, 2019 (Norman)

January 28, 2019 (Norman)

October 25, 2018 (Houston)

October 3, 2018 (Oklahoma City)

May 31, 2018 (Oklahoma City)

#### **OU “Granite Wash” and “Mississippi Lime” Consortia Research Meetings**

“Multidisciplinary reservoir characterization and modeling of the Pennsylvanian “Granite Wash”, Anadarko Basin - stratigraphic, structural, and diagenetic controls on reservoir distribution and productivity”

“Stratigraphic, structural, and diagenetic controls on heterogeneity and productivity of Mississippian carbonate, tripolite, and associated reservoirs of the midcontinent”

Presented the results-to-date;

April 16, 2015: 30 attendees

April 11, 2014: 25 attendees

#### **RCML Williams Fork Consortium Phase 6 Research Meetings**

“Stratigraphic architecture and sedimentology of the middle and upper Williams Fork Formation fluvial system: Douglas Creek Arch and Piceance Basin, Colorado”;

Presented the results-to-date;

April 26-28, 2013: 25 attendees (with field trip)

May 15, 2012: 28 attendees

September 23-25, 2011: 30 attendees (with field trip)

### **RCML Williams Fork Consortium Phase 5 Research Meetings**

"Stratigraphic architecture and reservoir characteristics of the Mesaverde Group: Application of outcrop-based concepts and statistics to the subsurface, Piceance Basin, Colorado";

Presented results-to-date;

May 13, 2011: 44 attendees

April 30, 2010: 50+ attendees

### **RCML Williams Fork Consortium Phase 4 Research Meetings**

"From rocks to models: outcrop-based analysis and statistics for subsurface characterization of fluvial reservoir geometry and connectivity, Williams Fork Formation, Piceance Basin, Colorado, U.S.A.";

Prepared and conducted research meetings for industry sponsors;

April 23, 2009: 42 attendees

April 4, 2008: 40 attendees

### **RCML Williams Fork Consortium Phase 3 Research Meetings**

"Stratigraphic architecture, reservoir characteristics, and 3-D outcrop modeling using high-resolution laser imaging (LiDAR), Williams Fork Formation of the Mesaverde Group, Piceance Basin, Colorado";

Prepared and conducted research meetings for industry sponsors;

August 9, 2007: Greenwood Village, Colorado

June 28, 2007: Encana Oil and Gas, Denver, Colorado

June 14, 2007: Williams Production Company, Denver, Colorado

January 6, 2006: Boulder, Colorado

### **AVID Consortium Phase I Research Meetings**

"Analysis of variability in dolomites, origin and implications for 3-D reservoir modeling";

Prepared and conducted research meetings for industry sponsors;

May 3, 2007: 6 attendees

April 28, 2006: 8 attendees

## **TEACHING**

### ***Post-Doctoral Researchers Supervised*** (University of Colorado Boulder)

2. Dr. Xiangyang Xie, September 2009-May 2010. Now a tenured Associate Professor of Geology at Texas Christian University.
1. Dr. Zulfiquar A. Reza, August 2004-March 2006. Now an Associate Professor of Petroleum Engineering at the University of Oklahoma.

### ***Graduate Students Supervised*** (University of Oklahoma and University of Colorado Boulder)

46. David A. Lubo-Robles, anticipated 2020, Development and application of modern machine learning and pattern recognition techniques; quantitative interpretation, pre-stack inversion, and seismic attribute analysis for petroleum exploration and development, Ph.D. dissertation, University of Oklahoma, Norman, Oklahoma (co-advisor: Dr. Kurt Marfurt).
45. Cody C. Totten, anticipated 2020, Regional- to reservoir-scale stratigraphy and reservoir properties of the Sycamore Formation and Caney Shale, Ardmore Basin, Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.

44. Spencer M. Corbett, anticipated 2020, Seismic-constrained structural characterization and 3-D geological modeling of the Meramec and Osage formations, controls on reservoir production, northwest STACK, Major and Dewey counties, Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
43. Hannah M. Morgan, anticipated 2020, Sedimentology, chemostratigraphy, and stratigraphic architecture of the Lower Cretaceous Burro Canyon Formation, Nine-Mile Canyon, Colorado, master's thesis, University of Oklahoma, Norman, Oklahoma.
42. Lindy M. Dingmore, anticipated 2020, Seismic-constrained reservoir characterization and modeling of the Wolfcamp Formation, Northwest Shelf, Delaware Basin, master's thesis, University of Oklahoma, Norman, Oklahoma.
41. Madison H. Williams, anticipated 2020, Integrated seismic interpretation and geological modeling of the Mississippian Meramec, eastern Anadarko Basin, Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
40. J. Javier Téllez-Rodríguez, anticipated 2020, Integrated characterization of tight siliciclastic reservoirs: examples from the Cretaceous Burro Canyon Formation, Colorado and Mississippian Meramec strata, Oklahoma, Ph.D. dissertation, University of Oklahoma, Norman, Oklahoma.
39. Fnú Suriamin, anticipated 2020, Stratigraphy, pore architecture, and petrophysics of a mixed carbonate-siliciclastic system, Meramec and Osage series (Mississippian), north-central Oklahoma, Ph.D. dissertation, University of Oklahoma, Norman, Oklahoma.
38. Laynie E. Hardisty, anticipated 2019, Stratigraphic variability of Mississippian Meramec chemofacies using machine learning and geostatistical modeling, STACK trend, Anadarko Basin, Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
37. Michael Miller, 2019, Mississippian Meramec lithologies and petrophysical property variability, STACK trend, Anadarko Basin, Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
36. Garrett J. Hickman, 2018, Parasequence-scale stratigraphic variability of lithology and porosity of Mississippian Meramec reservoirs and the relationship to production characteristics, STACK trend, Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
35. Katherine A. Drummond, 2018, Regional stratigraphy and proximal to distal variation of lithology and porosity within a mixed carbonate-siliciclastic system, Meramec and Osage series (Mississippian), central Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
34. Puntira Henglai, 2018, Sequence-stratigraphic and facies control on reservoir quality and productivity of Early to Middle Miocene fluvial and tide-dominated deltaic deposits, Formation 2, Gulf of Thailand, master's thesis, University of Oklahoma, Norman, Oklahoma.
33. Joshua C. Miller, 2018, Regional stratigraphy and organic richness of the Mississippian Meramec and associated strata, Anadarko Basin, central Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
32. Kelsey D. Lewis, 2018, Fluvial architecture of the Burro Canyon Formation using UAV-based photogrammetry and outcrop-based modeling: implications for reservoir performance, Rattlesnake



Canyon, southwestern Piceance Basin, Colorado, master's thesis, University of Oklahoma, Norman, Oklahoma.

31. Sarah A. Clark, 2018, Fluvial architecture of the Burro Canyon Formation using UAV-based photogrammetry and outcrop-based modeling: implications for reservoir performance, Escalante Canyon, southwestern Piceance Basin, Colorado, master's thesis, University of Oklahoma, Norman, Oklahoma.
30. Niles Wethington, 2017, Stratigraphic architecture of the Mississippian Limestone through integrated electrofacies classification, Hardtner Field area, Kansas and Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
29. Doğa Şenoğlu, 2017, Reservoir characterization and modeling of the Desmoinesian Series Granite Wash, Buffalo Wallow Field, Anadarko Basin, Texas, master's thesis, University of Oklahoma, Norman, Oklahoma.
28. Burak Salantur, 2016, Continuity, connectivity, and reservoir characteristics of Desmoinesian fan-delta conglomerates and sandstones, Elk City Field, Anadarko Basin, Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
27. Cori D. Holmes, 2015, Stratigraphic architecture, facies characteristics, and distribution of deepwater deposits, Colony Granite Wash, Anadarko Basin, Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
26. Katherine M. Lindzey, 2015, Geologically constrained seismic characterization and 3-D reservoir modeling of Mississippian reservoirs, north-central Anadarko Shelf, Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
25. Alyssa M. Karis, 2015, Stratigraphy and reservoir characteristics of the Marmaton Series (Pennsylvanian) Granite Wash, southern Anadarko Basin, master's thesis, University of Oklahoma, Norman, Oklahoma.
24. Colton B. Birch, 2015, Reservoir-scale stratigraphy, sedimentology and porosity characteristics of Mississippian reservoirs, northeastern Anadarko Shelf, Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
23. Anna M. Turnini, 2015, Stratigraphic and structural controls on Mississippian limestone and tripolitic chert reservoir distribution using seismic-constrained reservoir characterization and modeling, northern Oklahoma, master's thesis, University of Oklahoma, Norman, Oklahoma.
22. John L. McFadden, Jr., 2015, Depositional environment and reservoir characteristics of the upper Mesaverde Group, upper Philadelphia Creek, Douglas Creek Arch, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
21. Chelsea A. Fenn, 2014, Outcrop to subsurface reservoir characterization of the lower Mesaverde Group, Red Wash Field, Uinta Basin and Douglas Creek Arch, Utah and Colorado, master's thesis, University of Colorado, Boulder, Colorado.
20. Jeremy D. Ring, 2014, Petrophysical evaluation of lithology and mineral distribution with an emphasis on feldspars and clays, middle and upper Williams Fork Formation, Grand Valley Field, Piceance Basin, Colorado, master's thesis, University of Colorado, Boulder, Colorado.

19. Ryan J. Sharma, 2013, Fluvial architecture and sequence stratigraphy of the upper Williams Fork Formation, Plateau Creek Canyon, Piceance Basin, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
18. Tuba Evsan, 2013, Geological controls on formation water salinity distribution, southeastern Greater Natural Buttes Field, Uinta Basin, Utah, master's thesis, University of Colorado, Boulder, Colorado.
17. Aya El Attar, 2013, Regional stratigraphy, elemental chemostratigraphy, and organic richness of the Niobrara Formation, Piceance Basin, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
16. Daniel B. Allen, 2013, Geologically constrained electrofacies classification of fluvial deposits: an example from the Cretaceous Mesaverde Group, Uinta and Piceance basins, master's thesis, University of Colorado, Boulder, Colorado.
15. Gabriela I. Keeton, 2012, Characterization of fluvial sandstones based on outcrop spectral-gamma-ray data and borehole images, Williams Fork Formation, Piceance Basin, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
14. Christopher M. Rybowskiak, 2012, Evaluation of measured and facies-based effective permeability and the significance for reservoir mapping and connectivity, master's thesis, University of Colorado, Boulder, Colorado.
13. Jayne A. Sloan, 2012, Stratigraphic architecture and connectivity of a low net:gross fluvial system: combining outcrop analogs and multiple-point geostatistical modeling, lower Williams Fork Formation, Piceance Basin, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
12. Ericka S. Harper, 2011, Fluvial architecture of the lower Williams Fork Formation, (middle Mesaverde Group), Douglas Creek Arch, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
11. Kimberly S. Hlava, 2011, Sequence-stratigraphic controls on reservoir-scale architecture of the middle Mesaverde Group, Douglas Creek Arch, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
10. Sait Baytok, 2010, Seismic investigation and attribute analysis of faults and fractures within a tight-gas sandstone reservoir: Williams Fork Formation, Mamm Creek Field, Piceance Basin, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
9. Alicia C. Hewlett, 2010, Fluvial architecture and static connectivity of the Williams Fork Formation central Mamm Creek Field, Piceance Basin, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
8. Rachel V. Shaak, 2010, Stratigraphic architecture of shallow-marine to coastal-plain parasequences: lower Williams Fork Formation, southeastern Piceance Basin, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
7. Brandon N. Binford, 2009, Stratigraphic architecture and connectivity of high-sinuosity fluvial sandstone bodies in Coal Canyon, Colorado, with subsurface comparison to Grand Valley Field, master's thesis, University of Colorado, Boulder, Colorado.

6. Jill M. Haynie, 2009, Characterization and modeling of petrofacies and pore-volume distribution within a gas-storage reservoir, Ray Reef Field, southern Michigan Basin, Michigan, master's thesis, University of Colorado, Boulder, Colorado.
5. Nicholas K. Sommer, 2007, Sandstone-body connectivity in a meandering-fluvial system: an example from the Williams Fork Formation, Piceance Basin, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
4. Quentin A. German, 2006, Analysis of fluvial sandstone-body characteristics and architecture within a high net-to-gross system, upper Williams Fork Formation, Piceance Basin, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
3. Marielis F. Vargas, 2004, Characterization and modeling of fluvial sandstone distribution and static connectivity, Williams Fork Formation, Rulison Field, Piceance Basin, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
2. Amanda I. Ellison, 2004, Numerical modeling of heterogeneity within a fluvial point-bar deposit using outcrop and lidar data: Williams Fork Formation, Piceance Basin, Colorado, master's thesis, University of Colorado, Boulder, Colorado.
1. Colette B. Hirstius, 2003, Multiple scales of lateral petrophysical heterogeneity within dolomite lithofacies as determined from outcrop analogs: Implications for 3-D reservoir modeling, master's thesis, University of Colorado, Boulder, Colorado.

***Supervised numerous Undergraduate Students in research***

***University of Oklahoma Courses Instructed***

**Petroleum Geology** (GEOL 4133; required course for Petroleum Geology undergraduate majors; fall semesters) discusses the origin and distribution of conventional and unconventional petroleum resources, petroleum system, exploration methods, and reserves calculations. Enrollment: 10-25 students.

**Introductory Petroleum Geology and Geophysics** (*for Petroleum Engineering majors*) (GPHY 3423; required course for Petroleum Engineering majors; fall semesters). Addresses conventional and unconventional petroleum resources, basic sedimentary and structural geology, the petroleum system, source rocks, migration, types of traps and seals, reservoir rock properties, exploration and development methods, and volumetric reserves calculations. Enrollment: ~30 students.

**Subsurface Methods** (GEOL 4233; required course for Petroleum Geology undergraduate majors; spring semesters) concepts and methods of subsurface petroleum analysis. Well-log analysis and mapping (manual and computer). Enrollment: 10-25 students.

**Reservoir Characterization and Modeling** (GEOL 6970; fall semesters) introduces concepts and methods of geological reservoir characterization and modeling. Involves extensive use of Petrel software. I conduct a field trip to Colorado with the class. Enrollment: 10-25 students from geoscience and petroleum engineering.

**Reservoir Geology Seminar** (GEOL 6970-002) preparation of the graduate thesis or dissertation proposal. Involves literature reviews, presentations, and writing the thesis/dissertation proposal document. Enrollment: 4-10 students.

*University of Oklahoma, other courses I have instructed or co-instructed*

**Reservoir Characterization and Modeling – Study Abroad in Bogotá, Colombia** (GEOL 4970-5970; summer 2018) introduces concepts and methods of geological reservoir characterization and modeling. Extensive use of Petrel software. Enrollment: 5 OU students with students from the University of Los Andes and industry.

**Integrated Reservoir Modeling & Simulation** (GEOL/PE 6970-902; co-instruct) concepts and methods of integrated static reservoir modeling and dynamic fluid-flow simulation. Extensive use of Petrel/Eclipse software. Enrollment: 20 students (10 geoscience and 10 petroleum engineering - work in teams).

**3-D Reservoir Modeling** (GEOL 6970-901) introduced concepts and methods of 3-D geologic modeling. Enrollment: 20-25 students from geoscience and petroleum engineering.

**Field Methods** (GEOL 4136-Geology Field Camp; co-instruct) is a six-week summer course held at the Geology Field Camp in Cañon City, Colorado. Enrollment: 30-45 students.

**Geology of Italy – Study Abroad** (GEOL 4970; summer 2015; co-instruct) geology of Rome, Pompeii, Vesuvius, Apennines, Arezzo, Venice, and the Dolomites. Enrollment: 20 students.

*University of Colorado Boulder Courses Instructed*

**Introduction to Geology** (GEOL 1010) provides an introduction to geological sciences. The course covers the composition and structure of Earth, its dynamic processes, and the role of geological sciences in our society. Enrollment: ~169 students.

**Earth Resources and the Environment** (GEOL 3500) examines Earth's most important natural resources and their impact on society and the environment. Addresses the geology, occurrence, production, and use of petroleum, coal, mineral, and water resources. Future world energy supply and demand, conservation, and the transition from fossil fuels to non-polluting renewable resources are discussed. Enrollment: 20-30 students.

**Petroleum Geology** (GEOL 3540) discusses the origin and distribution of conventional and unconventional petroleum resources, source rocks, traps, seals, reservoir rock properties, exploration methods (well logs, core-to-log calibration, pay determination, subsurface mapping, 3-D seismic interpretation), reservoir geology, and reserves calculations. Enrollment: 15-25 students.

**Petroleum Reservoir Characterization and Modeling** (GEOL 5550) emphasizes concepts and methods of petroleum reservoir data analysis, integration, and modeling using subsurface information and outcrop analogs. The course addresses the petroleum system, reservoir properties, stratigraphic and structural controls on reservoir heterogeneity, flow units, well logs and pay determination, subsurface mapping, 3-D seismic data analysis, and concepts and methods of 3-D reservoir modeling. Enrollment: 5-15 students.

**Carbonate Sedimentary Environments** (GEOL 5650; co-instructor David Budd) examines the recognition and interpretation of modern and ancient carbonate sedimentary environments and facies associations through analysis of fauna, texture, fabric, sedimentary structures, and stratal architecture

using hand samples, cores, well logs, seismic data, and outcrops. The various scales and hierarchy of carbonate cyclicity are reviewed, as well as the external and local controls on carbonate sedimentation. Enrollment: 10 students.

**Sedimentology and Stratigraphy** (GEOL 3430; co-instructors; David Budd and Lon Abbott) introduces the study of sedimentary rocks emphasizing their origin, characteristics, and interpretation; and the principles and techniques for establishing the temporal order and spatial distribution of sedimentary layers. Enrollment: 40 students.

***University of Colorado Boulder, Science Education Initiative (SEI) and Faculty Teaching Excellence Program (FTEP) Workshops***

SEI: Defining Learning Goals for Geology 1010, Introduction to Geology, May 2007

SEI: Science Education Initiative "Lessons Learned" Workshop, December 2006

FTEP/SEI: Science Education Initiative Overview Workshop, March 3, 10, 17, 2006

FTEP: Symposium on Teaching & Learning - Refreshing your Teaching: "Goals oriented teaching through interactive learning" by Dr. Carl Wieman, January 2005

FTEP: Videotape and Evaluation; Dr. Pam Diggle and a student assistant videotaped my GEOL 1010 lecture and had a follow-up discussion of my teaching; November-December 2005

FTEP: Tenure Process Workshop, April 2003

FTEP: Tenure Process Workshop, February 2003

FTEP: A Model for Preparing Lectures Workshop, October 2001

FTEP: Performance in a Nutshell Workshop, October 2001

***Field Trip Leader***

RCML Williams Fork Consortium Phase 6 Sponsor Field Trip

Grand Junction, Colorado, September 22-25, 2013

- Co-Leader with Rex Cole; Stratigraphic Architecture and Sedimentology of the Middle and Upper Williams Fork Formation Fluvial System  
Prepared a 58-page guidebook for the trip.

RCML Williams Fork Consortium Phase 6 Sponsor Field Trip

Grand Junction, Colorado, September 23-25, 2011

- Co-Leader with Rex Cole; Stratigraphic Architecture and Sedimentology of the Middle and Upper Williams Fork Formation Fluvial System  
Prepared a 7-page guidebook supplement for the trip.

RCML Williams Fork Consortium Phase 5 Sponsor Field Trip

Grand Junction, Colorado, September 25-26, 2010

- Co-Leader with Rex Cole; Stratigraphic architecture and reservoir characteristics of the Mesaverde Group: Application of outcrop-based concepts and statistics to the subsurface, western and northern Piceance Basin, Colorado  
Prepared a 92-page guidebook for the trip.

SEPM Field Trip #2 - Iles-Williams Fork

Grand Junction, Colorado, June 2009

- Co-Leader with Rex Cole, Steve Cumella, and Mark Kirshbaum; Outcrop-based analysis and statistics for subsurface characterization of fluvial reservoir geometry and connectivity, Williams Fork Formation, Piceance Basin, Colorado.  
Prepared a 325-page guidebook for the trip.

RCML Williams Fork Consortium Phase 4 Sponsor Field Trip  
Grand Junction, Colorado, September 2008

- Co-Leader with Rex Cole; Outcrop-based analysis and statistics for subsurface characterization of fluvial reservoir geometry and connectivity, Williams Fork Formation, Piceance Basin, Colorado. Prepared a 325-page guidebook for the trip.

Geological Society of America Field Trip  
Dallas, Texas, November 1990

- Carboniferous geology and tectonic history of the southern Fort Worth (foreland) basin and Concho platform, Texas. Organized and co-led a 2-day field trip for the 1990 GSA Meeting in Dallas, Texas. Prepared a 67-page guidebook for the trip.

Fort Worth Geological Society Field Trip  
Central, Texas, 1988 and 1989

- Carboniferous geology of the northern Llano uplift, southern Fort Worth basin, and Concho platform. Helped organize and co-lead a 2-day field trip for the Fort Worth Geological Society (1988) and the Southwestern Association of Student Geological Societies (1989). Assisted in preparing a 100-page guidebook for both field trips.

### ***Corporate Training Instructor***

From Rocks to Models: Applied Reservoir Characterization and Modeling – for PT Geoservices Inc., Bali Indonesia, December 2013

- Instructor. Course addressed the concepts and methods of petroleum reservoir characterization and modeling using geological, geophysical, and engineering data. Topics covered included sedimentary and reservoir rock properties, tools for reservoir characterization, flow units and pay determination, basic concepts of sequence stratigraphy, siliciclastic and carbonate deposits and reservoirs, structural controls on reservoir heterogeneity, and reservoir modeling concepts and methods.

Reservoir Characterization Fundamentals Class – for Marathon Oil Company, Upstream Technology Houston, Texas, October, 2011; October 2012; April 2013; and October 2013

- Co-Instructor with staff from iReservoir (Denver). Taught various aspects of geology in reservoir characterization.

3-D Modeling of Sandstone Reservoirs School - ExxonMobil Upstream Research Company  
Houston, Texas, October 2000

- Co-Instructor. Taught sandstone facies modeling exercises and prepared and instructed exercises on petrophysical modeling and petrophysical modeling using trends. Presented an object-based geologic modeling case study of the Forties field “Charlie channel” reservoir.

## **SERVICE**

### ***College-Level Service – University of Oklahoma***

- 2016-present: Enunciator, announce student names at graduation ceremony  
2015-present: Committee Chair, Academic Appeals Board  
2016-2017: Committee Member, Scholarship Committee  
2016-2017: Committee Member, Oklahoma Geological Survey, Senior Research Geologist – Petroleum Search Committee  
2014-2015: Committee Member, Search Committee for Dean - College of Earth and Energy

### ***Departmental Service – University of Oklahoma***

- 2019-present: Chair, Petroleum Geosciences Vision Committee
- 2018-present: Member, Committee A (advisory committee for departmental issues)
- 2017-2018: Committee Member, Exploration Geophysics Faculty Search Committee
- 2015-2017: Committee Member, Petroleum Geochemistry Faculty Search Committee
- 2013-present: Chair, Graduate Affairs Committee (graduate admissions and other issues)
- 2013-present: Safety Captain - 9th floor, SEC Floor Safety Captain
- 2015: Committee Member, Applied Geophysics Faculty Search Committee
- 2014-2015: Member, Committee A (advisory committee for departmental issues)
- 2013-2014: Member/Co-Chair, Teaching/Field Intensive Faculty Search Committee

### ***College-Level Service – University of Colorado Boulder***

- 2010-2013: Chair, Arts & Sciences Council Budget Committee (advisory committee to Dean)
- 2009-2013: Member, Arts & Sciences Council Budget Committee (advisory committee to Dean)
- 2009-2013: Department Representative, Arts & Sciences Council (advisory committee to Dean)

### ***Departmental Service – University of Colorado Boulder***

- 2007-2010: Member of Baylor University, Geology Department, Advisory Board (3-year term)
- 2006-2013: Graduate Curriculum Committee
- 2005-2013: New Graduate Student Field Trip coordinator
- 2002-2013: Assist in coordinating student recruiting by energy companies
- 2002-2010: AAPG CU Student Chapter, Faculty Sponsor
- 2005-2006: Graduate Interview Committee
- 2003-2004: Executive Committee
- 2003: Program Review - Graduate Program Committee
- 2002: Ad hoc Departmental Chair Search Committee

### ***Professional Society Service***

- 2000-present: Reviewer for *AAPG Bulletin*, *Marine and Petroleum Geology*, *Interpretation*, *Sedimentary Geology*, and several other peer-reviewed journals
- 2009-2016: AAPG Bulletin, Associate Editor
- 2015-present: Co-Editor, AAPG Memoir, *Mississippian Reservoirs of the Mid-Continent, U.S.A.*
- March 2019: 1-Day Short Course: 3-D Reservoir Modeling (using Petrel), 2019 AAPG-OU Student Expo. Number of participants: 22.
- March 2018: 1-Day Short Course: Reservoir Characterization and Modeling, 2018 AAPG-OU Student Expo. Number of participants: 21.
- Sept. 2017: 1-Day Short Course: From Rocks to Models: Geological Reservoir Characterization and Modeling, 2017 AAPG Mid-Continent Section Meeting. Number of participants: 31.
- April 2017: 2-Day Short Course: From Rocks to Models: Geological Reservoir Characterization and Modeling, 2017 AAPG Annual Convention. Co-instructed with Dr. Zulfiqar Reza (OU petroleum engineering professor). Number of participants: 29.
- March 2017: 1-Day Short Course: 3-D Reservoir Modeling, 2017 AAPG-SEG OU Student Expo. Number of participants: 25.
- June 2016: Short Course Instructor, June 18-19, 2016: AAPG/SEPM Annual Convention, Calgary, Canada, Short Course 9, “From Rocks to Models: Geological Reservoir Characterization and Modeling”
- May 2015: Short Course Instructor, May 31, 2015: AAPG/SEPM Annual Convention, Denver, Colorado, Short Course 13, “From rocks to models: applied reservoir characterization and modeling”

- April 2010: Short Course Instructor, April 10-11, 2010: AAPG/SEPM Annual Convention, New Orleans, “From Rocks to Models: Reservoir Geology for Graduate Students”
- 2008-2009: Session Co-Chair (Oral and Poster), 2009: AAPG/SEPM Annual Convention, “Tight Gas Sandstones and Carbonates - Micropore Networks and Fracture Systems”
- 2007-2008: Session Co-Chair (Oral and Poster), 2008 AAPG/SEPM Annual Convention, “Reservoir Characterization and Modeling: Reservoir Characterization for EOR/IOR and Bypassed Pay: Case Studies”
- 2006-2007: Session Co-Chair (Oral and Poster), 2007 AAPG/SEPM Annual Convention, “Reservoir Characterization and Modeling: New Approaches to Reservoir Characterization and Modeling I & II”
- 2004-2007: AAPG Reservoir Development Committee
- 2004-2007: AAPG Future of Earth Scientists Committee, Vice Chair
- Sept. 2005: Short Course Instructor: AAPG Eastern Section, Morgantown, West Virginia, “Rocks to Models: An Introduction to 3-D Reservoir Characterization and Modeling”; 1-day professional short-course. 25 participants from industry and academia.
- April 2004: Short Course Instructor: AAPG/SEPM Annual Convention, Dallas, Texas, “Rocks to Models: An Introduction to 3-D Reservoir Characterization and Modeling”; 2-day professional short-course. 30 participants from industry and academia (national and international).
- 2001-2004: AAPG Distinguished Lecture Committee, Member
- 2001-2004: AAPG Bulletin, Associate Editor
- 2000-2002: AAPG Foundation Grants-in-Aid Committee, Member

## **PROFESSIONAL DEVELOPMENT**

### ***Professional Short Courses, Workshops, and Field Trips Attended***

- May 2018: *Petrophysical Evaluation of Unconventional Reservoirs*, Salt Lake City, Utah, by Jack Breig
- May 2018: *Petrography of Mudrock Hydrocarbon Reservoirs*, Salt Lake City, Utah, by Lyn Canter, Terri Olson, Mark Longman, Joe MacQuaker, and David Hull
- May 2015: *Sequence-Stratigraphic Analysis of Mudstones: Key to Paleoclimate Archives, Subsurface Fluid Flow and Hydrocarbon Source*, Denver, Colorado, by Kevin M. Bohacs, Ovidiu Remus Lazar, Joe Macquaker, and Juergen Schieber
- Apr. 2014: *Shale Reservoir Evaluation*, Houston, Texas, by Randy Miller
- May 2013: *Play Assessment*, Salt Lake City, Utah, Ken Hood and Peggy Walker
- May 2010: *Multiple-Point Statistical Simulation Workshop*, ExxonMobil, Houston, Texas, by Taskin Akpulat
- May 2009: *Petroleum Geoengineering: Integration of Static and Dynamic Models*, Golden, Colorado, by Patrick Corbett
- May 2008: *Reservoir Geophysics: Applications*, by William L. Abriel
- Apr. 2007: *Principles of Reservoir Characterization*, Long Beach, California, by Jeffrey Yarus
- Feb. 2007: *Facies & Stratigraphy of the Mesaverde, Southern Piceance Basin – A Core Workshop*, Lakewood, Colorado, by Edmund “Gus” Gustason and Steve Cumella
- Aug. 2006: *Petrel Introduction*, Houston, Texas, by Kent Adamson and Randi Ashburn
- Apr. 2006: *Giant Hydrocarbon Reservoirs of the World Core Workshop*, Houston, Texas, by P. M. “Mitch” Harris and Jim Weber
- Aug. 2004: *Stratigraphy and Reservoir Characteristics of the Mesaverde Group, Piceance Basin, Colorado*, by Rex Cole and Steve Cumella



- Aug. 2004: *Low-Permeability Core Petrophysics & Reservoir Assessment*, Denver, Colorado, by Alan Byrnes
- Mar. 2004: *Algerita Escarpment Field Trip*, Guadalupe Mountains, Texas and New Mexico by Charles Kerans, James Jennings, and Jerry Lucia
- Mar. 2004: *Collapse Breccia Field Trip, Ordovician El Paso and Montoya Groups, Southern Franklin Mountains*, El Paso, Texas, by Jerry Lucia, Charles Kerans, and Robert Loucks
- Oct. 2003: *Reservoir Modeling with Geostatistics*, Denver, Colorado, by Clayton Deutsch
- Apr. 2003: *Geostatistics for Seismic Data Integration in Earth Models*, Golden, Colorado, by Olivier Dubrule
- Jan. 2003: *Kingdom Suite*, Golden, Colorado, by Todd Stallings
- Jun. 2002: *Horizontal Well Completions*, Ruidoso, New Mexico, by Vithal Pai
- Apr. 2002: *Utah Stratigraphy Field Trip*, by Gary Hampson, Howard Johnson, Matthew Jackson
- Mar. 2002: *Reservoir Architecture of the Deep-Water Brushy Canyon Formation, West Texas Field Trip*, Guadalupe Mountains, Texas, by Rick Beaubouef, Christine Rossen, and Morgan Sullivan
- Mar. 2002: *Assessing Reservoirs, Seals, and Pay*, Boulder, Colorado, by John Kaldi
- July 2001: *Heterogeneity Modeling for Reservoir Characterization – IRAP-RMS*, Houston, Texas, by Laurie Green and Jeff Bayless
- Dec. 2000: *IESX to GeoFrame*, Houston, Texas, Schlumberger-GeoQuest, Royce Olsen
- Sep. 2000: *Carbonate Facies and Stratigraphy, Turks & Caicos, BWI and West Texas / SE New Mexico*, Dravis Interest, Inc., Jeff Dravis (Modern), ExxonMobil Upstream Research Company, Jim Markello, Steve Bachtel, Paul Wagner (Ancient)
- Jun. 2000: *SAS Fundamentals*, Houston, Texas, SAS Institute, Eric Rossland, Tori Barr
- Apr. 1999: *Sequence Stratigraphy and Characterization of Carbonate Reservoirs*, San Antonio, Texas, SEPM, Charlie Kerans, Scott Tinker
- May 1998: *Modern / Ancient Deep-Sea Fan Sedimentation*, Salt Lake City, Utah, SEPM, Hans Nelson, Tor Nilsen
- Jun. 1996: *Applied Parameter Estimation for Groundwater Modeling*, Golden, Colorado, USGS; Mary Hill, Richard Cooley
- Jun. 1993: *Comparative Structural Geology*, Midland, Texas, OGCI, Richard Groshong
- Mar. 1993: *Principal Centered Leadership*, Midland, Texas, Stephen Covey Seminar
- Jan. 1993: *Carbonate Logging*, Midland, Texas, Conoco Inc., Jeff Martin, Dan Hartmann, Steve Solomon, Peter Delaney
- Nov. 1992: *Seismic / Sequence Stratigraphy*, Houston, Texas, AAPG, Frank Brown
- Aug. 1992: *Interpretation of 3-D Seismic Data*, Lafayette, Louisiana, Alistair Brown
- May 1992: *Geologic Application of Borehole Electrical Images*, Central Texas, Schlumberger, Mike Grace
- Oct. 1991: *Seismic Processing*, Ponca City, Oklahoma, Conoco Inc., Tom Stoeckley, Chuck Burch
- Jul. 1991: *Team Building Seminar*, Midland, Texas, Conoco Inc., Leeanna Washington
- Jul. 1991: *Basic Reservoir Engineering*, Houston, Texas, OGCI, Donald Helander
- May 1991: *Reservoir Heterogeneity and Sequence Stratigraphic Framework, San Andres and Grayburg Formations, Central Guadalupe Mountains*, New Mexico, Charlie Kerans
- Aug. 1990: *A Practical Application of Migration and DMO*, Midland, Texas, SEG, John Bancroft
- Jul. 1990: *Fundamentals of Diplog Analysis*, Midland, Texas, Atlas Wireline, Ed L. Bigelow
- May 1990: *Basic Logging (Formation Evaluation)*, Bandera, Texas, Conoco Inc., Peter Delaney, Jim Albright, Tommy Ragland, Jeff Martin, Dave Harwell, John Berner, Tim Borbas
- Nov. 1989: *Subsurface Geological Mapping*, New Orleans, Louisiana, Atwater Consultants, Duncan Goldthwaite
- Feb. 1988: *Prospecting with Old E-Logs*, Waco, Texas, Schlumberger, Rollyn Frank

## HONORS

2017 Roger N. Planalp Memorial Award – AAPG Midcontinent Section Best Poster Presentation: Drummond, K., **M. J. Pranter**, and G. M. Grammer, 2017, Regional stratigraphy and proximal to distal variation of lithology and porosity within a mixed carbonate-siliciclastic system, Meramec and Osage Series (Mississippian), north-central Oklahoma, AAPG Datapages/Search and Discovery Article #90309, AAPG Mid-Continent Section Meeting, Oklahoma City, Oklahoma, October 2017.

2017 Award of Excellence: "Top 10" Poster Presentation, 2017 AAPG Annual Convention: E. Eilum, G. M. Grammer, and **M. J. Pranter**, Combining sequence stratigraphy and artificial neural networks to enhance regional correlation and determination of reservoir quality in the "Mississippian Limestone" of the Mid-Continent, USA. (April 2017).

2012 Steve Champlin Memorial Award – RMS-AAPG Best Poster Presentation: Gustason, E. R., and **M. J. Pranter**, Integrated characterization and modeling of reservoir lithofacies and reserves of the Sussex Sandstone, House Creek North area, Power River Basin, Wyoming, 2012 Rocky Mountain Section AAPG Convention, Grand Junction, Colorado.

2012 Marinus Smith Award from the CU Parents Association in recognition of CU-Boulder faculty, staff, coaches, and administrators who have made a significant impact on the lives of CU undergraduate students.

SEPM 2011 Excellent Poster Presentation: Shaak, R. V., **M. J. Pranter**, and E. R. (Gus) Gustason, III, Stratigraphic architecture of shallow-marine to coastal-plain parasequences: lower Williams Fork Formation, southeastern Piceance Basin, Colorado, 2011 AAPG/SEPM Annual Convention, Houston, Texas.

Honorary Coach, CU Women's Basketball Team, November 30, 2011.

Honorary Coach, CU Men's Football Team, November 4, 2011.

Honorary Coach, CU Women's Basketball Team, November 19, 2010.

A. I. Levorsen Memorial Award, RMS-AAPG 2008 Best Paper Co-Author, R. D. Cole and **M. J. Pranter**, Stratigraphic variability of sandstone-body dimensions in the Williams Fork Formation: Outcrop data from the southwest Piceance Basin, Colorado, 2008 Rocky Mountain Section AAPG Convention, Denver, Colorado.

2006 Steve Champlin Memorial Award, RMS-AAPG Best Poster Presentation: German, Q. A., N. K. Sommer, **M. J. Pranter**, and R. D. Cole, Analysis of Fluvial Sand-Body Characteristics and Dimensions in a High Net-to-Gross System, Upper Williams Fork Formation, Main and Plateau Creek Canyons, Piceance Basin, Colorado, 2006 Rocky Mountain Section AAPG Convention, Billings, Montana.