



San Joaquin Geological Society

Date: Tuesday, January 9, 2018

Time: 6:00 PM Social Hour
7:00 PM Dinner
8:00 PM Lecture

Place: Eagles Lodge
1718 17th Street, Bakersfield, CA 93302

PSAAPG Members
\$25 with reservation
\$30 without reservation

Non PSAAPG Members
\$30 with reservation

Full-time Students with ID:
\$10 - Courtesy of
California Resources Corporation

*** RSVP ***

**By: noon Monday,
January 8, 2018**

Register online:

<http://www.SanJoaquinGeologicalSociety.org/>

Pay online or at the door

SJGS WEBSITE

<http://www.SanJoaquinGeologicalSociety.org/>

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Depositional Facies of the Pliocene Tulare Formation in Outcrop and Core

Presented by: Mike Clark, Consulting Petroleum Geologist, San Joaquin Geological Services, Inc.

Abstract: The Pliocene Tulare Formation of California is a prolific oil-producing reservoir that was first formally defined by Anderson (1905) as the youngest deformed strata of the San Joaquin basin. Although Anderson recognized that the Tulare is largely non-marine, he defined it on the basis of structural events. This means the Tulare is a time-stratigraphic unit, not a lithologic one. Subsequent research recognized that the Tulare on the basin margins is an unconformity-bound, highly variable complex of laterally interfingering facies deposited in alluvial, fluvial and lacustrine settings. Basinward the unconformities bounding the Tulare become conformable, and the amount of missing section beneath these surfaces decreases dramatically. Consequently, shallow-marine facies of the underlying Pliocene San Joaquin Formation in the center of the basin grade upward into transitional to non-marine facies of the basal Tulare, and the basal Tulare contact here is difficult to define. Likewise, the Recent, non-marine, alluvial fill in the center of the basin is difficult to distinguish from the Tulare strata beneath. Thus, the Tulare on the basin margins is basically an unconformity-bound megasequence that basinward becomes a conformable package of strata bound by time-significant surfaces that are difficult to identify. This talk looks at the variability of different depositional facies in this Tulare megasequence, and discusses the criteria to identify these facies in core and outcrop.

Biography: Michael S. Clark is a consulting petroleum geologist with San Joaquin Geological Services, Inc. He has an M.S. in Geology from UC Davis and a Ph.D. in Geology from Colorado School of Mines. Dr. Clark worked as a geologist for Amoco, Exxon, Elf Aquitaine, ARCO, and Chevron, and has consulted for multiple clients including Marathon, Occidental, and Aera Energy. His research interests include sequence stratigraphy, process sedimentology, and organic geochemistry.

Dr. Clark is a California Registered Geologist and AAPG Certified Petroleum Geologist. He received the Vic Church Best Poster Award and the Levorsen Best Paper Award for presentations at AAPG-Pacific Section. He is a past member of the AAPG House of Delegates, past President of the San Joaquin Geological Society, and recipient of the Distinguished Service Award for AAPG-Pacific Section. He is a member of the Board of Governors of the California Well Sample Repository. He is also very active in the Boy Scouts of America, having been an Eagle Scout, Scoutmaster, and recipient of the Silver Beaver Award, the highest volunteer recognition in scouting.

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