



# AAPG BULLETIN

VOLUME 102 • NUMBER 9 • SEPTEMBER 2018

## REGULAR FEATURES

Previews .....	ii
Staff Editors .....	iii
Association .....	iv
House of Delegates .....	vi
Instructions to Authors .....	1684
Electronic Submission .....	1738
Geoscience Meetings Calendar . . .	1866
Memorials .....	1911

**ON COVER** – View from a Maori settlement known as a pā overlooking the black-sand Pukearuhe Beach and the Tasman Sea, North Island, New Zealand. Pukearuhe Beach is one of the prime outcrop locales to observe the deep-water slope deposits of the Miocene Mount Messenger Formation and is located approximately 40 km (25 mi) northeast of New Plymouth. This channel-levee and overbank succession is comprised chiefly of turbidites and extends into the subsurface of the Taranaki Basin where it has been a producing interval in several oil and gas fields for decades. Today, the deep-water Miocene outcrops exposed along the coast of the Taranaki Basin serve as valuable analogues for other fine-grained, heterolithic, poorly indurated, litharenite petroleum reservoirs around the world. See related paper by Rotzien et al. on p. 1763 in this issue of the *Bulletin*.

## ARTICLES

<i>Shortwave infrared (1.0–2.5 μm) hyperspectral imaging of the Athabasca West Grand Rapids Formation oil sands</i> Michelle Speta, Benoit Rivard, and Jilu Feng .....	1671
<i>Quantifying sediment supply to continental margins: Application to the Paleogene Wilcox Group, Gulf of Mexico</i> Jinyu Zhang, Jacob Covault, Michael Pycrc, Glenn R. Sharman, Cristian Carvajal, and Kristy Milliken .....	1685
<i>Sediment gravity-flow deposits and three-dimensional stratigraphic architectures of the linked Cutoff, upper Bone Spring, and upper Avalon system, Delaware Basin</i> Gregory S. Hurd, Charles Kerans, Edmund L. Frost, J. Antonio Simo, and Xavier Janson .....	1703
<i>Sequence paleogeography and coal accumulation of the Early–Middle Jurassic in central Qilian Mountain belt (Muli Basin), Qinghai Province, northwestern China</i> Xiaoxu Shang, Longyi Shao, Wenlong Zhang, Jinggao Lv, Weichao Wang, Yonghong Li, Man Huang, Jing Lu, and Huaijun Wen .....	1739
<i>Geochemical, petrographic, and uranium–lead geochronological evidence for multisourced polycyclic provenance of deep-water strata in a hybrid tectonic setting: The upper Miocene upper Mount Messenger Formation, Taranaki Basin, New Zealand</i> Jonathan R. Rotzien, Greg H. Browne, and Peter R. King .....	1763
<i>Precambrian basement reservoirs: Case study from the northern Bongor Basin, the Republic of Chad</i> Lirong Dou, Jingchun Wang, Renchong Wang, Xiaodong Wei, and Chandramani Shrivastava .....	1803
<i>Effects of internal gradients on pore-size distribution in shale</i> Christian Obasi and Jack Pashin .....	1825
<i>Depositional history of the western Nile Delta, Egypt: Late Rupelian to Pleistocene</i> A. Kellner, G. J. Brink, and H. El Khawaga .....	1841
<i>Determination of static and dynamic characteristics of microscopic pore-throat structure in a tight oil-bearing sandstone formation</i> Guangfeng Liu, Yaoxing Bai, Daihong Gu, Yang Lu, and Daoyong Yang .....	1867
<i>Determining the porosity exponent <i>m</i> and lithology factor <i>a</i> for sandstones and their control by overburden pressure: A case study from the Gulf of Suez, Egypt</i> Mohamed S. El Sharawy and Bassem S. Nabawy .....	1893

### ACKNOWLEDGMENTS—

AAPG thanks the AAPG Foundation for financial support of this issue of the *Bulletin*.

The AAPG Editor thanks the following reviewers for their work on papers in this issue: Robert Amerman, Vivek Anand, Saeid Asadzadeh, A. S. Abo ElAta, Sherif Farouk, Hui Gao, Fran J. Hein, Saturnina Henares, Aref Lashin, Meng Li, Walid Ahmed Makled, Sandeep Mukherjee, Heping Pan, Michael Ranger, Art Saller, Michael L. Sweet, Eugene Szymanski, Xiofeng Tien, Robert Trice, Peter Warwick, Patrick Welch, Chaodong Wu, Kelai Xi, Dianshi Xiao, Xianheng Zhao, and Sebastian Zimmermann.

الهيئة المصرية العامة للثروة المعدنية  
المكتبة المركزية / الدوريات العلمية

23483

رقم التسجيل : 8-9-2019  
تاريخ الورود :

Printed in the U.S.A.

Co. 423336