

**Michael D. Vanden Berg, P.G.**

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**PROFESSIONAL EXPERIENCE**

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**Utah Geological Survey**

**Salt Lake City, UT**

*Energy and Minerals Program Manager* (June 2017 – present)

*Senior Geologist, Petroleum Section Manager* (February 2014 – June 2017)

*Project Geologist* (December 2007 – February 2014)

*Geologist* (February 2005 – December 2007)

- Manage all operations for the Energy and Minerals Program
  - o Manage staff of ~12 geologists
  - o Manage Program's operating budget (~\$1.2 million per year)
  - o Provide technical review of all publications generated by the Energy and Minerals team
  - o Provide assistance in the planning and operations of the Utah Geological Survey
  - o Act as point of contact for energy and mineral inquires
  - o Oversee operations of the Utah Core Research Center
- Principal Investigator: Tight oil potential of the Uinta and Paradox Basins, Utah (2012-2017)
  - o Wrote successful proposal and managed grant budget of \$920,000 from U.S. DOE – National Energy Technology Laboratory
  - o Managed interdisciplinary research team consisting of university professors, graduate students, consultants, and state employees
  - o Collaborated with stakeholders including local and state government officials and petroleum operators
  - o Research goals included: reservoir characterization, core description, outcrop description, regional sweet spot mapping, production evaluation, facies analysis
- Principal Investigator: Green River Formation (GRF) lacustrine deposits in the Uinta Basin, Utah
  - o \$120,000 grant from Total SA (2013-2016), included participation on graduate student committees
  - o \$120,000 grant from the Institute for Clean and Secure Energy, University of Utah (2009-2015)
  - o \$65,000 grant from the Center for Oil Shale Technology and Research, CO School of Mines (2011-2013)
  - o Secured funding (~\$100,000) and coordinated drilling of the Skyline 16 GRF research core
  - o Research goals included: oil shale resource evaluation, geologic characterization, facies analysis, paleoenvironmental reconstructions
- Conduct research on lacustrine microbialites/carbonates from the GRF and modern Great Salt Lake
  - o Working with an interdisciplinary team including the Great Salt Lake Institute, Friends of Great Salt Lake, universities, and other state agencies
  - o Research goals include: understanding microbialites in Great Salt Lake and how they interact with the surrounding ecosystem, comparing modern Great Salt Lake microbialites with similar deposits from the ancient GRF in the Uinta Basin, Utah
- Author energy-related reports for the Utah legislature and serve on energy-related legislative committees
  - o Author the energy chapter for the annual Economic Report to the Governor (2004-present)
  - o Authored the annual Utah Coal Report (2002-2009) and co-author the subsequent Utah Mining Report (coal chapter) (2009-present)
  - o Author the semi-annual Utah's Energy Landscape publication (2009-present, 4 editions)
  - o Member of the State of Utah Revenue Assumptions Working Group within the Governor's office (2004-present), supply energy and metal related price and production forecasts
- Principal Investigator researching aquifers and saline water disposal in the Uinta Basin, Utah (2008-2012)
  - o Wrote successful proposal and managed grant budget of \$860,000 from U.S. DOE – National Energy Technology Laboratory
  - o Managed interdisciplinary research team consisting of consultants and state employees
  - o Collaborated with stakeholders including local and state government officials, petroleum operators, and tribal organizations
  - o Research goals included: aquifer mapping and characterization, water resource characterization

**Utah Energy Office****Salt Lake City, UT***Geologist* (June 2003 - February 2005)

- Collected and analyzed energy-related data for the state of Utah
- Authored various energy-related reports focusing on coal, petroleum, natural gas, geothermal, and GHG
- Managed the Anemometer Loan Program, set-up anemometer towers and analyzed wind data

**Utah Geological Survey****Salt Lake City, UT***Geological Technician* (February 2003 - June 2003)

- Researched quality and abundance of industrial minerals throughout the state of Utah

**University of Utah – Dept. of Geology and Geophysics****Salt Lake City, UT***Research Assistant* (June 2000 - January 2003)

- Developed technique of light absorption spectroscopy as a rapid, non-destructive mineral identification tool
- Awarded three JOI/USSSP grants to perform research

**Ocean Drilling Program****College Station, TX***Physical Properties Specialist, Leg 199* (October 2001 - December 2001)

- Collected, interpreted, and presented physical property data from cores drilled during Leg 199

**J.E. Fuller Hydrology and Geomorphology, Inc.****Tempe, AZ***Intern* (summer of 1998)

- Measured stratigraphic columns and performed soil descriptions for a geomorphic analysis of the Cave Creek watershed, AZ
- Researched the fluvial geomorphology of several rivers in the southwestern U.S.

**EDUCATION**

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**University of Utah****Salt Lake City, UT**

Master of Science in Geology, May 2003

Thesis topic: The use of light absorption spectroscopy as a mineral identification tool: Implications for the study of paleoclimate

**Calvin College****Grand Rapids, MI**

Bachelor of Science in Geology, May 2000

**PROFESSIONAL ASSOCIATIONS AND LICENSURE**

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- Professional Geologist in the State of Utah (#6866233), since 2008
- American Association of Petroleum Geologists
- Society for Sedimentary Geology
- Utah Geological Association
- Geological Society of America
- Friends of Great Salt Lake

**HONORS AND AWARDS**

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- Utah Geological Survey Employee of the Year - 2018
- Utah Geological Association Honorary Membership - 2018
- AAPG Energy and Minerals Division President's Certificate for Excellence in Presentation – 2009

**PROFESSIONAL ASSOCIATION VOLUNTEER ACTIVITIES**

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- 2017-present – Westminster College geology advisory board
- 2016-2018 – General Chair of the 2018 AAPG Annual Conference, held in Salt Lake City, Utah, May 2018
- 2015 – 35<sup>th</sup> Oil Shale Symposium technical program co-chair
- 2014 – Organizer, RPSEA Onshore Production Conference, Unconventional Hydrocarbon Reservoirs and Produced Water Management
- 2010-2014 – AAPG-Rocky Mountain Section executive committee (President in 2013)

- 2011-2013 – AAPG sections committee
- 2011-2013 – AAPG-Rocky Mountain Section 2013 annual convention general co-chair
- 2007-2008 – Utah Geological Association treasurer
- 2005-2007 – AAPG-Rocky Mountain Section 2007 annual convention planning committee

#### **GRADUATE STUDENT COMMITTEE MEMBER**

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- Jennifer Morris – candidate
  - M.S. degree – University of Utah, Department of Geology and Geophysics
- Federico Rueda – graduated fall 2017
  - M.S. degree – University of Alberta, Department of Earth and Atmospheric Sciences
  - Thesis: Dolomitization in the Uteland Butte Member of the Eocene Green River Formation, Uinta Basin, Utah
- Ryan Gall – graduated spring 2017
  - M.S. degree – University of Utah, Department of Geology and Geophysics
  - Thesis: Documentation of highly seasonal and perennial facies with implications for climatic control on the Douglas Creek and Parachute Creek Members, Green River Formation, southeastern Uinta Basin, Utah
- Leah Toms – graduated fall 2014
  - M.S. degree – University of Utah, Department of Geology and Geophysics
  - Thesis: Spatial and temporal variations in lacustrine depositional controls from the middle to upper Green River Formation, central and western Uinta Basin, Utah
- Morgan Rosenberg – graduated fall 2013
  - M.S. degree – University of Utah, Department of Geology and Geophysics
  - Thesis: Facies, stratigraphic architecture, and lake evolution of the oil shale bearing Green River Formation, eastern Uinta Basin, Utah

#### **FIELD TRIP AND CORE WORKSHOP LEADERSHIP**

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- 2018 – BYU geology alumni field trip
  - One day field trip around Great Salt Lake
  - Co-leader: Thomas Chidsey, Bob Lindsey, Dru Nielson
- 2018 – Industry core workshop – Total SA
  - Examination of cores from the Green River Formation, Uinta Basin, Utah
- 2017 – Planetary Science Institute core workshop and field trip – Mars scientists
  - Examined microbialites from the Green River Formation and other rocks in Utah, spent a day traveling around Great Salt Lake to look at modern lacustrine facies and microbialites
  - Co-leaders: Thomas Chidsey, David Eby, Rebecca Williams
- 2017 – Industry core workshop – Oil and gas professionals
  - Examination of cores from the Green River Formation, Uinta Basin, Utah
- 2015 – Industry field trip/core workshop – Oil and gas professionals
  - Geologic characterization of the Green River Formation in the Uinta Basin, Utah: Field trip and core workshop
  - Co-leader: Craig Morgan
- 2015 – Utah Geological Association field trip – Academia, government, general public
  - Geology of the Uinta Basin and eastern Uinta Mountains, northeast Utah
  - Co-leader: Doug Sprinkel
- 2014 – Industry field trip/core workshop – Pertamina Oil Company
  - Major oil and gas plays of Utah: Cores and outcrop analogs for reservoirs worldwide
  - Co-leader: Thomas Chidsey
- 2014 – RPSEA field trip – Oil and gas professionals, government officials
  - The geology of Nine Mile Canyon and produced water management in the Uinta Basin, Utah
- 2014 – RPSEA field review – Oil and gas professionals, government
  - Basin-scale produced water management tools and options – GIS based models and statistical analysis of shale gas/tight sand reservoirs and their produced water streams, Uinta Basin, Utah
  - Co-leaders: Thomas Chidsey, Craig Morgan, Janae Wallace
- 2013 – Industry field trip/core workshop – Repsol and StatOil

- Tertiary (Eocene) Green River Formation, Uinta Basin, Utah: Cores and outcrop analogs for Brazilian and other lacustrine reservoirs
- Co-leaders: Thomas Chidsey and David Eby
- 2013 – AAPG-RMS meeting field trip/core workshop – Industry, academia
  - Modern and ancient microbial carbonates in Utah: Examples from Great Salt Lake and the Uinta Basin’s Tertiary (Eocene) Green River Formation
  - Co-leaders: Thomas Chidsey and David Eby
- 2011 – University of Utah Unconventional Fuels Conference field trip – industry professionals, government, academia – Uinta Basin, Utah
- 2010-2015 – 30<sup>th</sup>, 31<sup>st</sup>, 32<sup>nd</sup>, 33<sup>rd</sup>, 34<sup>th</sup>, and 35<sup>th</sup> Oil Shale Symposium field trip – industry professionals, government, academia – Uinta Basin, Utah - various co-leaders

## CONTINUING EDUCATION

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- 2018 – Lake Bonneville geology conference – Salt Lake City, UT
- 2017 – Geological Society of America annual meeting – Seattle, WA
- 2017 – Leadership Skills for Supervisors – Leadership
- 2017 – Leadership Skills for Supervisors – Interpersonal Effectiveness
- 2017 – Leadership Skills for Supervisors – Communications
- 2017 – Leadership Skills for Supervisors – Performance Management
- 2016 – Great Salt Lake Issues Forum – Salt Lake City, UT
- 2015 – 6<sup>th</sup> International Limnogeology Congress – Reno, NV
- 2014 – AAPG Short Course – Concepts, Models, and Case Studies of Dolomitization with Applications to Hydrocarbon Exploration and Development
- 2013 – Microbial Carbonates in Space and Time Conference: Implications for Global Exploration and Production – Geological Society of London – London, United Kingdom
- 2013 – International Oil Shale Symposium and Field Trip – Tallinn, Estonia
- 2010 – AAPG-RMS Short Course – Source Rocks 101: What the Exploration Geologist, Geophysicist, and Production Engineer Should Know About Petroleum Source Rocks
- 2010 – Short Course – Carbonate Sequence Stratigraphy: Principals and Applications
- 2009-2018 – AAPG annual meetings (various cities)
- 2009 – Utah Geological Association field trip – Geology and Geologic Resources and Issues in Western Utah
- 2009 – Geological Society of America-Rocky Mountain Section field trip – Geology of Utah National Parks
- 2007/2009 – Geological Society of America-Rocky Mountain Section meetings
- 2007 – Utah Geological Association field trip – Central Utah: Diverse Geology of a Dynamic Landscape
- 2007 – Short Course – Concepts of Sequence Stratigraphy: Examples from Core, Outcrop, Logs, & Seismic
- 2006-2017 – AAPG-Rocky Mountain Section meetings (various cities)
- 2006-2015 – Oil Shale Symposium (2006-2014, Golden, CO; 2015, Salt Lake City, UT)
- 2006 – Utah Geological Association field trip – Geology of Northwestern Utah
- 2005 – MS Access Level I class
- 2005 – Introduction to ArcGIS I (AGRC)
- 2000-2002 – American Geophysical Union annual meetings
- 2001 – Advanced Stratigraphic Concepts School – Permian of the Guadalupe Mountains, West Texas and New Mexico

## PUBLICATIONS

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### Peer-reviewed papers

- Walters, A.P., Meyers, S.R., Carroll, A.R., Hill, T.R., and **Vanden Berg, M.D.**, *submitted*, Lacustrine Cyclicity in the Early Eocene Green River Formation: Evidence from X-Ray Fluorescence Core Scanning: *Journal of Sedimentary Research*.
- Yingst, R.A., Bartley, J., Chidsey, T.C., Cohen, B.A., Hynek, B.M., Kah, L.C., Minitti, M.E., **Vanden Berg, M.D.**, Williams, R.M.E., Adams, M., Black, S., El-Maary, M.R., Gemperline, J., Kronyak, R., and Lotto, M., *submitted*, Is a linear or a walkabout protocol more efficient for robotic sample selection in a small region of interest?: *Astrobiology*.
- Rueda, F., Machel, H.G., and **Vanden Berg, M.D.**, *in press*, Dolomitization in the Uteland Butte Member of the Eocene Green River Formation, Uinta Basin, Utah: UGS Open-File Report.

- Birgenheier, L.P., **Vanden Berg, M.D.**, Plink-Bjorklund, P., Gall, R.D., Rosencrans, E., Rosenberg, M.J., Toms, L.C., and Morris, J., 2019, Climate impact on fluvial-lake system evolution, Eocene Green River Formation, Uinta Basin, Utah, USA: GSA Bulletin doi: <https://doi.org/10.1130/B31808.1>
- Vanden Berg, M.D.**, 2019, Domes, rings, ridges, and polygons: Characteristics of microbialites from Utah's Great Salt Lake: The Sedimentary Record, v. 17, no. 1, p. 4-10.
- Newell, D.L., Jensen, J.L., Frantz, C.M., and **Vanden Berg, M.D.**, 2017, Great Salt Lake (Utah) microbialite  $\delta^{13}\text{C}$ ,  $\delta^{18}\text{O}$ , and  $\delta^{15}\text{N}$  record fluctuations in paleolake geochemistry since the late Pleistocene: Geochemistry, Geophysics, Geosystems, 18, p. 3631-3645.
- Gall, R.D., Birgenheier, L.P., and **Vanden Berg, M.D.**, 2017, Climatic control on fluvial deposition and architecture of the Douglas Creek and Parachute Creek Members, Green River Formation, southeastern Uinta Basin, Utah: Journal of Sedimentary Research, v. 87, p. 1019-1047.
- Vanden Berg, M.D.**, and Birgenheier, L.P., 2017, An examination of the hypersaline phases of Eocene Lake Uinta, upper Green River Formation, Uinta Basin, Utah: Journal of Paleolimnology, 58(3), p. 353-371.
- Mehmani, Y., Burnham, A.K., **Vanden Berg, M.D.**, and Tchelep, H., 2017, Quantification of organic content in shales via near-infrared imaging: Green River Formation: Fuel, 208, p. 337-352.
- Keighley, D., McFarlane, C., and **Vanden Berg, M.D.**, 2016, Diagenetic sequestration of rare earths and actinides in phosphatic oil shale from the lacustrine Green River Formation (Eocene), Utah, USA: An SEM and LA-ICP-MS study: Journal of Paleolimnology, 59(1), p. 81-102.
- Birdwell, J., **Vanden Berg, M.D.**, Johnson, R.C., Mercier, T.J., Boehlke, A.R., and Brownfield, M.E., 2016, Geological, geochemical, and reservoir characterization of the Uteland Butte Member of the Green River Formation, Uinta Basin, Utah: in Dolan, M.P., Higley, D.K., and Lillis, P.G., editors, Hydrocarbon Source Rocks in Unconventional Plays, Rocky Mountain Region: Rocky Mountain Association of Geologists.
- Vanden Berg, M.D.**, and Birgenheier, L.P., 2016, Evaluation of the upper Green River Formation's oil shale resource in the Uinta Basin, Utah: in Spinti, J., and Smith, P., editors, Utah Oil Shale: Science, Technology, and Policy Perspectives: CRC Press/Taylor & Francis Group, p.59-85.
- Logan, S.K., Sarg, J.F., and **Vanden Berg, M.D.**, 2016, Lithofacies, deposition, early diagenesis, and porosity of the Uteland Butte member, Green River Formation, eastern Uinta Basin, Utah and Colorado: UGS Open-File Report 652.
- Mehmani, Y., Burnham, A.K., **Vanden Berg, M.D.**, and Tchelep, H., 2016, Quantification of kerogen content from optical photographs: Fuel, 177, p. 63-75.
- Chidsey, T.C., **Vanden Berg, M.D.**, and Eby, D.E., 2015, Petrography and characterization of microbial carbonates and associated facies from modern Great Salt Lake and Uinta Basin's Eocene Green River Formation in Utah, USA: in Bosence, D.W.J., Gibbons, K.A., Le Heron, D.P., Morgan, W.A., Pritchard, T., and Vining, B.A., editors, Microbial Carbonates in Space and Time: Implications for Global Exploration and Production: Geological Society, London, Special Publications 418.
- Rosenberg, M.J., Birgenheier, L.P., and **Vanden Berg, M.D.**, 2015, Facies, stratigraphic architecture, and lake evolution of the oil shale bearing Green River Formation, eastern Uinta Basin, Utah: in Smith, M.E., and Carroll, A.R., editors, Stratigraphy and Paleolimnology of the Green River Formation, Western USA: Springer, DOI 10.1007/978-94-017-9906-5, p. 211-249.
- Keighley, D., Töro, B., **Vanden Berg, M.D.**, and Pratt, B.R., 2015, Deformation within the Mahogany oil shale zone of the Green River Formation at Sand Wash, eastern Utah, USA: in Vanden Berg, M.D., Resselar, R., and Birgenheier, L.P., editors, Geology of Utah's Uinta Basin and Uinta Mountains: Utah Geological Association Publication 44, p. 423-438.
- Vanden Berg, M.D.**, Lehle, D.R., Carney, S.M., and Morgan, C.D., 2013, Geological characterization of the Birds Nest aquifer, Uinta Basin, Utah: Assessment of the aquifer's potential as a saline water disposal zone: UGS Special Study 147.
- Anderson, P.A., **Vanden Berg, M.D.**, Carney, S., Morgan, C., and Heuscher, S., 2012, Moderately saline groundwater in the Uinta Basin, Utah: UGS Special Study 144.
- Birgenheier, L.P., and **Vanden Berg, M.D.**, 2011, Core-based integrated sedimentologic, stratigraphic, and geochemical analysis of the oil shale bearing Green River Formation, Uinta Basin, Utah: United States Department of Energy DE-FE0001243, 1-30 p.
- Gallin, W., Gani, M.R., Deo, M., Gani, N.D.S., and **Vanden Berg, M.D.**, 2009, Lake level controlled sedimentological heterogeneity of oil shale, upper Green River Formation, eastern Uinta Basin, Utah: in Oguniola, O., Hartstein, A., and Oguniola, O., editors, Oil Shale: A Solution to Liquid Fuels Dilemma: American Chemical Society, Series Book, v. 1032, Oxford University Press, Chapter 3, pp. 63-85.
- Seneshen, D.M., Chidsey, Jr., T.C., Morgan, C.D., and **Vanden Berg, M.D.**, 2009, Surface geochemical expression of the Lisbon field and comparison with a nearby recent Leadville gas discovery: in Houston, Wray, and Moreland, editors, The Paradox Basin Revisited: New Developments in Petroleum Systems and Basin Analysis: Rocky Mountain Association of Geologists.
- Vanden Berg, M.D.**, 2008, Basin-wide evaluation of the uppermost Green River Formation's oil-shale resource, Uinta Basin, Utah and Colorado: UGS Special Study 128.
- Jarrard, R.D., and **Vanden Berg, M.D.**, 2006, Sediment mineralogy based on visible and near-infrared reflectance spectroscopy: in Rothwell, G., editor, New Techniques in Sediment Core Analysis: Geological Society, London, Special Publications 267.
- Vanden Berg, M.D.**, Dyni, J.R., and Tabet, D.E., 2006, Utah oil shale database: UGS Open-File Report 469.
- Dyni, J.R., Donnell, J.R., **Vanden Berg, M.D.**, and Tabet, D.E., 2006, Preliminary Utah oil shale database: USGS Open-File Report 2006-1295.
- Busch, W.H., **Vanden Berg, M.D.**, and Masau, P.E., 2006, Velocity and density of Paleogene equatorial sediments: Variation with sediment composition: in Wilson, P.A., Lyle, M., and Firth, J.V., editors, Proc. ODP, Sci. Results, 199.
- Vanden Berg, M.D.**, and Jarrard, R.D., 2006, Data report: High-resolution mineralogy for Leg 199 based on reflectance spectroscopy and physical properties: in Wilson, P.A., Lyle, M., and Firth, J.V., editors, Proc. ODP, Sci. Results, 199.

- Vanden Berg, M.D.**, and Jarrard, R.D., 2004, Cenozoic mass accumulation rates in the equatorial Pacific based on high-resolution mineralogy of Ocean Drilling Program Leg 199: *Paleoceanography*, 19:10.1029/2003PA000928.
- Vanden Berg, M.D.**, and Jarrard, R.D., 2002, Determination of equatorial Pacific mineralogy using light absorption spectroscopy: *Proc. ODP, Initial Reports*, 199:1-20.

## Edited Volume

- Vanden Berg, M.D.**, Resselar, R., and Birgenheier, L.P., editors, 2015, Geology of Utah's Uinta Basin and Uinta Mountains: Utah Geological Association Publication 44 (23 papers).

## Abstracts

- Vanden Berg, M.D.**, Birdwell, J.E., and Johnson, R.C., 2019, The basin that keeps on giving: The successes and challenges of horizontal drilling in the Uinta Basin, Utah. AAPG-RMS meeting, Cheyenne, WY.
- Jagniecki, E.A., Gall, R.D., and **Vanden Berg, M.D.**, 2019, Geologic characterization of new Cane Creek cores from the northern part of the Paradox Basin, Utah. AAPG-RMS meeting, Cheyenne, WY.
- Gall, R.D., **Vanden Berg, M.D.**, Birdwell, J.E., and Johnson, R.C., 2019, Outcrop and core characterization of the Uteland Butte member and Castle Peak interval, lower Green River Formation, southwestern Uinta Basin, Utah. AAPG-RMS meeting, Cheyenne, WY.
- Jagniecki, E.A., Janick, J., Scott, J.J., and **Vanden Berg, M.D.**, 2019, The influence of faults on the deposition of large lacustrine carbonate mounds in the Green River Formation of Utah and Wyoming: Implications for understanding spatial distribution and reservoir quality. AAPG meeting, San Antonio, TX.
- Homewood, P.W., Mettraux, M., **Vanden Berg, M.D.**, SchaeGIS, J., Foubert, A., and Atwood, G., 2018, Into hot water or out of our depth? Tufa, travertine, and microbialites at Lakeside (Utah). Lake Bonneville Conference, Salt Lake City, Utah.
- Keighley, D., Ani, A., Boonsue, S., Boucher, B., Hall, D., McFarlane, C., and **Vanden Berg, M.D.**, 2018, Of heavy metal, microbes, and phosphate: Rock of the Ypresian age (early Eocene climatic optimum) illustrates natural processes of metal sequestration from an intermontane lake basin. Atlantic Geoscience Society Annual Colloquium, Truro, Nova Scotia, Canada.
- Yingst, R.A., Bartley, J., Chidsey, T.C., Cohen, B.A., Hynek, B.M., Kah, L.C., Miniti, M.E., **Vanden Berg, M.D.**, Williams, R.M.E., Black, S., El-Maary, M.R., Gemperline, J., Kronyak, R., and Lotto, M., 2018, Is a linear or a walkabout protocol more efficient for robotic sample selection in a small region of interest?, Lunar Planet. Sci. Conf., 49th, Abs. #1173.
- Worms, K., Birgenheier, L.P., and **Vanden Berg, M.D.**, 2018, Paleoredox Conditions, Paleoproductivity, and Depositional Environment of an Eocene Black Shale: Mahogany Zone, Green River Formation, Eastern Uinta Basin, Utah. AAPG 2018, Salt Lake City, UT.
- Gall, R.D., Birgenheier, L.P., and **Vanden Berg, M.D.**, 2018, Fluvial depositional variability in the Douglas Creek and Parachute Creek Members, Green River Formation, Uinta Basin, Utah. AAPG 2018, Salt Lake City, UT.
- Cupertino, D.F., **Vanden Berg, M.D.**, Awramik, S.M., Buchheim, H.P., Frantz, C.M., Biaggi, R.E., and Chidsey, T.C., 2018, Microbialite Investigations of the Douglas Creek Member of the Green River Formation (Eocene), Evacuation Creek Area, Uinta Basin, Utah, USA. AAPG 2018, Salt Lake City, UT.
- Johnson, R.C., Birdwell, J.E., and **Vanden Berg, M.D.**, 2018, Tight oil resource potential of the Mahogany zone within the Eocene Green River Formation, Uinta Basin, Utah. AAPG 2018, Salt Lake City, UT.
- Homewood, P.W., Mettraux, M., **Vanden Berg, M.D.**, Foubert, A., and SchaeGIS, J., 2018, Presalt Reservoir Analogs: Lacustrine Microbialites Fed by Shore Zone Hot Springs, Lakeside UT. AAPG 2018, Salt Lake City, UT.
- Frantz, C., Matyjasik, M., Newell, D., **Vanden Berg, M.D.**, and Park, C., 2017, Questioning the origin of the Great Salt Lake microbialites. AGU annual meeting, San Francisco, CA.
- Vanden Berg, M.D.**, Lindsey, M.R., Boyd, E.S., Chidsey, T.C., and Eby, D.E., 2017, The microbialites of Utah's Great Salt Lake: Geology vs. biology. GSA annual meeting, Seattle, WA.
- Chidsey, T.C., **Vanden Berg, M.D.**, Nielsen, P., and Burriss, J., 2017, Introducing the largest single oil field (Greater Aneth, southeastern Utah) collection of carbonate cores in the Rocky Mountains—Tools for education and research. GSA annual meeting, Seattle, WA.
- Bowen, D.W., Eby, D.E., **Vanden Berg, M.D.**, Chidsey, T.C., and Williams, R.M.E., 2017, Tectono-Stratigraphic Setting of Cenozoic Intermontane Lake Basins: A Comparison Between Selected Systems of the Rocky Mountains, USA and Central Italy -Implications for Studying Gale Crater Mars. GSA Penrose Conference: 250 Million Years of Earth History in Central Italy, Airo, Italy.
- Eby, D.E., Bowen, D.W., **Vanden Berg, M.D.**, Chidsey, T.C., Palucis, M.C., and Williams, R.M.E., 2017, Comparative Sedimentology of Rocky Mountain and Central Italian Intermontane Lakes: Potential Implications for Lacustrine Sediments in Gale Crater, Mars. GSA Penrose Conference: 250 Million Years of Earth History in Central Italy, Airo, Italy.
- Mehmani, Y., Burnham, A.K., **Vanden Berg, M.D.**, Gelin, F., and Tchelepi, H., 2017, Multiscale characterization of spatial heterogeneity of petroleum source rocks via optical and near-infrared spectroscopy. Gussow Research Conference, Banff, Alberta, Canada.
- Mettraux, M., Homewood, P., Foubert, A., **Vanden Berg, M.D.**, and SchaeGIS, J., 2017, Carbonate mineral species characterizing depositional environments in a system linking travertine to microbialite mounds, early Great Salt Lake, Lakeside Utah. International Meeting of Sedimentology, Toulouse, France.
- Mehmani, Y., Burnham, A.K., **Vanden Berg, M.D.**, and Tchelepi, H., 2017, Multiscale characterization of spatial heterogeneity of petroleum source rocks via near-infrared spectroscopy. URTEC 2017, Austin, TX.

- Vanden Berg, M.D.**, Chidsey, T.C., Eby, D.E., Lindsey, M.R., and Boyd, E.S., 2017, Great Salt Lake microbial carbonates: Geology vs. biology. AAPG-RMS, Billings, MT.
- Chidsey, T.C., Morgan, C.D., Sprinkel, D.A., Eby, D.E., and **Vanden Berg, M.D.**, 2017, Major oil plays in Utah—An overview. AAPG-RMS, Billings, MT.
- Birdwell, J.E., Johnson, R.C, and **Vanden Berg, M.D.**, 2017, Trace element chemistry in Green River Formation oil shales from the Piceance and Uinta Basins: Implications for interpretation of redox conditions in lacustrine systems. AAPG-RMS meeting, Billings, MT.
- Birgenheier, L.P., Gall, R.D., Rosencrans, E.M., and **Vanden Berg, M.D.**, 2017, Climatic control on fluvial-deltaic systems of the lacustrine Green River Formation, Uinta Basin, Utah. GSA-RMS meeting, Calgary, Alberta, Canada.
- Birdwell, J.E., **Vanden Berg, M.D.**, and Johnson, R.C., 2017, Geochemistry and mineralogy of the Eocene Green River Formation petroleum system, Uinta Basin, Utah. AAPG meeting, Houston, TX.
- Homewood, P, **Vanden Berg, M.D.**, Foubert, A., Schaegis, J., and Mettraux, M., 2017, Travertine ridges and microbialite reefs: a rock record of GSL shorelines at Lakeside, Utah. Lyell Meeting 2017. Sticking together: microbes and their role in forming sediments, The Geological Society of London, Burlington House, London, U.K.
- Homewood, P, **Vanden Berg, M.D.**, Mettraux, M., Foubert, A., and Schaegis, J., 2017, From travertine ridges to microbialite reefs: a source-to-sink record from Pleistocene GSL shorelines at Lakeside, Utah. 25<sup>th</sup> SwissSed Annual Meeting, Bridging Gaps and Generations in Swiss Sedimentology, University of Fribourg, Fribourg, Switzerland.
- Vanden Berg, M.D.**, Chidsey, T.C., and Eby, D.E., 2016, Exploring Utah's other great lake: What Great Salt Lake can tell us about ancient Lake Uinta. AAPG-RMS-PS meeting, Las Vegas, NV.
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