

## Alyssa Kaess

Email: rockitsage@gmail.com

### Education

- West Virginia University (Left for health reasons March 2019)  
*PhD in geology (did not complete)* G.P.A. 4.0 (for one year)
- California State University, Bakersfield (Graduated: March 2016)  
*M.S. in Geology* G.P.A. 3.63
- California State University, Bakersfield (Graduated: March 2013)  
*B.S. in Geology & B.A. in Religious Studies* G.P.A. 3.24 and 3.60 respectively

### Awards and Scholarships

- Outstanding Graduate Thesis in NSME (May 26, 2016)
- Pacific Section AAPG Martin van Couvering Award (April 2014)
- CSUB Student Research Poster (graduate division): 1<sup>st</sup> place (May 2014)
- NSF-CREST Scholarship: \$25,000/year (January 2013 – June 2015)
- Herman W. Weddle Scholarship (September 2014 – June 2015)
- CSUB C.E. Strange Scholarship (June 2012)
- CSUB President's Association Scholarship (Fall 2013 – Spring 2014)

### Research & Teaching Experience

- Currently Teach undergraduate courses at California State University, Bakersfield (2020-present)
  - How the Earth Works (GEO 1009)
  - Integrated Science: Earth Science (SCI 3310)
  - California Geology (GEO 3319)
  - Water in the West (GEO 3329)
- Taught various undergraduate labs at West Virginia University.
  - Historical Geology (instructor)
  - Physical Geology (instructor)
  - Rocks and Minerals (instructor)
  - Field Camp (TA)
  - Geology for Geographers (TA)
- MS Thesis Research (2013 – 2016)
  - Petrographic determination of the diagenetic mineralogy and history of the Temblor Formation at McKittrick Oil Field, California.
- Scanning Electron Microscope Laboratory Assistant at CSUB (2012 – 2016)
  - Obtained and interpreted SEM-EDS data for students and researchers
  - Preparation of samples including sediments from turbidites, drilling mud, and other sedimentary and igneous sources.
- REVS-UP (Research Experience Vitalizing Science University Program)
  - Introduced scanning electron microscopy and research techniques to local high school students and teachers as part of a 4 week-long Chevron funded summer program (summer of 2013 and 2014).
- Taught undergraduate courses at California State University, Bakersfield (2015 - 2017)
  - Our Oceans (Geology 110)

- California Geology (Geology 352A)
- Water in the West (Geology 352B)
- Assisted Dr. Jan Gillespie (CSUB) in teaching a GIS short course (summer of 2012)

## **Field Experiences**

- Southern Utah University field camp 2012
- Sampling for a thermochronologic study of the Coast Mountains in British Columbia with Dr. Graham Andrews (2015)
- USGS EDMAP
  - Co-mapped part of a 7.5 minute quadrangle in the southern Sierra Nevada batholith as part of an EDMAP project awarded to Dr. Graham Andrews (2015).

## **Skills**

- Trained at the Colorado University TRaIL lab for U/Th-He dating and picking apatite/zircon
- Received wilderness first aid training and certificate in 2018
- Fluid inclusion analysis
- Proficient in scanning electron microscopy-energy dispersive spectrometry (SEM-EDS)
- Proficient in petrographic microscopy and point-counting
- Proficient with rock crushing techniques for mineral separation
- Proficient with MS Office
- Proficient with Zoom, Canvas, and Open Broadcast Software
- Familiar with ArcGIS
- Familiar with Petra

## **Associations and Affiliations**

- AAPG, AGU, AWG, GSA, PSAAPG

## **Science Communication**

- Co-Founder of the Knowledge Fellowship
  - <https://twitter.com/TheKnowledgeFe1>
  - <https://discord.com/invite/nYdgZjj>
- AGU Webinar - Online engagement: Utilizing emerging platforms. (August 2020)
  - <https://www.youtube.com/watch?v=WPIM9rLEaqs>
- TwitchCon 2019 Panel on educational outreach (September 2019)
  - <https://www.twitch.tv/videos/491281695>
- IFTF Future of Learning and Research Expert Workshop (January 2020)
  - <https://www.iftf.org/home/>

## **Short Courses**

- Sequence Stratigraphy (GSA annual meeting, 2013)

## Publications

- Nguyen, D.T., Horton, R.A., and **Kaess, A.B.** (2016) Diagenesis, plagioclase dissolution and preservation of porosity in Eocene and Oligocene sandstones at the Greeley oil field, southern San Joaquin basin, California, USA. Geological Society of London Special Publications, v. 435, doi.org/10.1144/SP435.14

## Abstracts (Oral Presentations)

- **Kaess, A.B.**, and Horton, R.A. Jr., 2016, Diagenetic history and reservoir quality of the Phacoides Sandstone, Temblor Formation, McKittrick Oil Field, California: AAPG Annual Convention and Exhibition, Calgary, Alberta, Canada.
- **Kaess, A.B.**, Horton, R.A. Jr., Shertukde, S., and Armijo, M., 2015, Diagenesis of the Temblor Formation sandstones, McKittrick oil field, California: Pacific Section AAPG-Western Region Society of Petroleum Engineers Joint Technical Conference.
- **Kaess, A. B.**, and Horton, R. A., Jr. 2014, Preliminary study of the mineralogy and diagenetic history of the Temblor Formation sandstones, McKittrick oil field, California: Pacific Section AAPG-Western Region Society of Petroleum Engineers Joint Technical Conference.
- Nguyen, D. T., Horton, R. A., Jr., and **Kaess, A. B.**, 2014, Diagenesis of the Oligocene Vedder Formation, Greeley oil field, southern San Joaquin basin, California: Pacific Section AAPG-Western Region Society of Petroleum Engineers Joint Technical Conference.

## Abstracts (Poster Presentations)

- **Kaess, A.B.**, and Horton, R. R., Jr., 2015, The Petrology and Diagenetic History of the Phacoides Sandstone, Temblor Formation at the McKittrick Oil Field, California: American Geophysical Union Fall Meeting.
- **Kaess, A. B.**, Horton, R. A., Jr., and Andrews, G. D., 2014, A Graduate Student's Perspective on Engaging High School Students in Research Outside of the Classroom: American Geophysical Union Fall Meeting.
- Rivas, C., **Kaess, A. B.**, Mickler, P., Loewy, S. L., Horton, R. A., And Baron, D., 2014, Supercritical co -brine-rock interactions at a proposed carbon sequestration/ enhanced oil recovery site, Vedder Formation, Rio Bravo oil field, southern San Joaquin Valley, California: Geological Society of America, Abstracts with Programs, v. 46, no. 6.
- Horton, R. A., Jr., Olabisi, O. E., **Kaess, A. B.**, Caffee, S. E., 2014, Diagenesis and porosity development of the Wasco oil field, California, USA: Geological Society (London) Conference: Reservoir Quality of Clastic and Carbonate Rocks: Analysis, Modelling and Prediction, London, U.K., p. 221-222.
- Nguyen, D. T., Horton, R. A., Jr., and **Kaess, A. B.**, 2014, Diagenesis of the Oligocene Vedder Formation, Greeley oil field, southern San Joaquin basin, California, USA, Geological Society (London) Conference: Reservoir Quality of Clastic and Carbonate Rocks: Analysis, Modelling and Prediction, London, U.K., p. 98-100.
- Martindale, Z.S., **Kaess, A.B.**, Ramirez, A., Andrews, G.D.M., Brown, S.R., Preliminary results of geologic mapping of Durwood and Fairview roof pendants, Sierra Nevada Batholith (Fairview Quadrangle), Tulare County, California (abs.): Geological Society of America, Abstracts with Programs, v. 45, no. 7, p. 390.

- Nguyen, D. T., Horton, R. A. Jr., and **Kaess, A. B.**, 2013, Diagenesis of the Oligocene Vedder Formation, Greeley Oil Field, Southern San Joaquin Basin, California, USA (abs.): Geological Society of America Annual Meeting, Denver, CO, Paper No. 40-4.
- Olabise, O. E., Horton, R. A., **Kaess, A. B.**, and Caffee, S. E., 2013, Petrology and Porosity Development of the Oligocene and Eocene Sandstones of the Wasco Oil field, Central San Joaquin, California, USA (abs.): AAPG Annual Convention and Exhibition, Pittsburg, PA, May 19-23, control ID 1556180.
- Nguyen, D. T., Horton, R. A. Jr., and **Kaess, A. B.**, 2013, Diagenesis of the Oligocene Vedder Formation, Greeley Oil Field, Southern San Joaquin Basin, California, USA: Pacific Section AAPG-Western Region Society of Petroleum Engineers Joint Technical Conference, AAPG Abstracts, p. 58.
- Olabise, O. E., Horton, R. A., **Kaess, A. B.**, and Caffee, S. E., 2013, Petrology and Porosity Development of the Oligocene and Eocene Sandstones of the Wasco Oil field, Central San Joaquin, California, USA (abs.): Pacific Section AAPG-Western Region Society of Petroleum Engineers Joint Technical Conference, AAPG Abstracts, p. 60.