

Rebekah Elizabeth Simon

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SUMMARY OF QUALIFICATIONS

- 8+ cumulative years of carbonate-focused geology and geochemistry experience; mix of industry and academic settings
- Familiarity with conventional and unconventional petroleum systems including the Niobrara, Bakken/Three Forks, Eagle Ford, Jurassic of Offshore Nova Scotia, Permian of West Texas

EDUCATION

Doctor of Philosophy, Geological Sciences (Graduate Certificate: Sci. & Tech. Policy) Exp. May 2020

The University of Colorado Boulder (CU), Boulder, CO

Dissertation Title: *Diagenetic and Catagenetic Effects on Pore Network Evolution in an Unconventional Chalk-Marl Reservoir, Cretaceous Niobrara Formation, Denver Basin CO*

Advisor: Dr. David Budd

Cumulative GPA: 4.0/4.0

Master of Science, Geological Sciences

Dec 2014

The University of Texas at Austin, Jackson School of Geosciences (UT), Austin, TX

Thesis Title: *Fault Control on Dolomite Formation and Distribution, Rattlesnake Canyon, Guadalupe Mountains, New Mexico*

Advisor: Dr. Charles Kerans, Dr. Christopher Zahm

Cumulative GPA: 3.9/4.0

Bachelor of Science, Geological Engineering (Minors: Intl. Political Econ., Econ. & Business) May 2012

Colorado School of Mines (CSM), Golden, CO

Thesis Title: *Redox Boundaries and Geochemical Implications, Devonian Three Forks Formation, Williston Basin, North Dakota and Montana*

Advisor: Dr. John Humphrey (Dr. Lyn Canter, Dr. Mark Sonnenfeld)

Cumulative GPA: 3.5/4.0

SKILLS

- Proficiency correlating and interpreting subsurface data including wireline logs, seismic surveys
- Field experience in seismic-scale reservoir analogs including the Paradox Basin, Book Cliffs Utah, Trans-Pecos Texas, Permian Basin Texas, Bighorn Basin Wyoming
- Experience with Landmark software, GeoGraphix, ArcGIS, QGIS, Petra, SMT Kingdom Suite, Global Mapper, Adobe Illustrator, R programming language
- Technical knowledge of mass spectrometry, XRD/XRF, QEMSCAN, CL microscopy, total lipid extraction, infrared spectroscopy, atomic force microscopy

WORK EXPERIENCE

ExxonMobil Geoscience Recruiting

Aug 2018

Field Exercise Participant

Cody, WY

- Team-based basin analysis (source, reservoir, seal, and trap identification) in the Bighorn Basin petroleum system as part of a recruiting exercise

Colorado Governor's Office/Oil and Gas Conservation Commission

Jan 2018-May 2018

Governor's Energy and Environment Fellow

Denver, CO

- Statistical and spatial analysis of public comments on operator-proposed comprehensive drilling plans (CDPs)

- University of Colorado Boulder** Sept 2015-present
Graduate Student Teaching Assistant Boulder, CO
- Developing new spectroscopic methods for *in situ* hydrocarbon characterization
 - TA: One semester of Introduction to Geology Lab, undergraduate majors and non-majors
 - TA: Two semesters of Sedimentology and Stratigraphy Lab, upper division undergraduate majors
- Herbst Academic Center, CU Boulder** Jan 2016-May 2018
Subject Tutor Boulder, CO
- Tutoring 1000-4000 level geology, geography, and atmospheric science to student athletes, in both one-on-one and group settings (approximately 10 athletes/week)
 - Teaching academic success skills like note-taking, online research, citations to student athletes
- University of Texas at Austin, Reservoir Characterization Research Lab (RCRL)** Sept 2012-Dec 2014
Graduate Student Research Assistant/Teaching Assistant Austin, TX
- Interpreted depositional system of Knowles Limestone from core log, wireline logs and thin sections, presented core at annual RCRL meeting
 - Performed petrographic characterization of Turks and Caicos early fractures, gave technical presentation at annual RCRL meeting
 - Assisted on RCRL field trips including karst of Cret. TX, sequence stratigraphy of Permian W. TX
 - TA: One semester of Sequence Stratigraphy Lab, graduates
- Whiting Petroleum Corporation** June 2011-Sept 2012
Intern Denver, CO
- Evaluated production potential by correlating known Bakken facies with P&P data
 - Helped implement Bakken development projects by interpreting wireline logs, mapping formations
 - Cataloged well data, core photographs, P&P data and prepared reference presentations of each core
 - Prepared samples for QEMSCAN and dual-beam SEM analysis, including cutting and mounting of specimens, carbon and platinum coating samples, argon milling SEM samples
- Chevron Center of Research Excellence (CoRE), Dr. David Pyles** Oct 2011-May 2012
Student Research Assistant Golden, CO
- Created and maintained GIS database covering Ventura Basin, CA
 - Collected, digitized, and cataloged field resources for work in Ventura Basin including aerial imagery, geologic maps, and other overlays
- CSM Stable Isotope Laboratory, Dr. John Humphrey** Dec 2009-May 2012
Lab Manager Golden, CO
- Operated elemental analyzer and mass spectrometer, prepared samples for stable isotopic analysis (H,C,N,O,S), maintained sample inventory

****For a list of awards, professional societies, grants, publications/presentations, and service, please view attached sheets.**

GRANTS

ACS Petroleum Research Fund New Directions Grant: \$110,000	Oct 2017
University of Colorado Achievement Reward for College Scientists Scholarship: \$13000	Aug 2017/18
University of Colorado Boulder Marks Scholarship Fund Grant: \$2000	Apr 2017
University of Colorado Boulder Graduate School Domestic Travel Grant: \$300	Mar 2017
University of Colorado Boulder Dept. of Geosciences Mentorship Grant: \$1000	Mar 2017
Clay Minerals Society Graduate Student Grant: \$3000	June 2016
AAPG Ike Crumbly Minorities in Energy Grant: \$2750	May 2016
GSA Graduate Student Grants: \$1875	Apr 2016
SEPM Graduate Student Grants: \$1500	Mar 2016
RMAG Norman H. Foster Memorial Grant: \$5000	Mar 2016

AWARDS

Best Oral Presentation, 3 rd Place, AAPG Annual Convention & Expo 2018	June 2018
Best Technical Presentation, MS Division, Jackson School of Geosciences	Dec 2014
Imperial Barrel Award, 2 nd Place, Gulf Coast Regional	Apr 2013
Robert M. Hutchinson Brunton Compass Award for Outstanding Field Work, CSM	May 2012
Neal J. Harr Memorial Outstanding Student Award, Rocky Mtn. Assn. Geologists	Apr 2012

TEACHING EXPERIENCE

Sedimentology and Stratigraphy (CU) – taught weekly labs, led three regional field trips	Spring 2016/17
Introduction to Geology (CU) – taught weekly labs and led regional Boulder field trips	Fall 2015
Sequence Stratigraphy (UT) – taught weekly labs and helped lead Permian NM field trip	Spring 2014
Ugrad Field Camp (UT) – led Penn. phylloid mound exercise; assisted in UT, CO, NM	Summer 2014
Ugrad Field Camp (CSM) – assisted in Molas Lake, CO exercise	Summer 2012

TECHNICAL PRESENTATIONS (*not primary author)

Microanalysis Society Topical Conference EBSD-2018 – Poster	2018
* <i>“Superior Interpolation of Spatial Diffraction Data using Bayesian Deep Neural Networks”</i>	
AAPG Annual Convention and Exhibition – Oral Presentation	2018
<i>“In-Situ Chemical Analysis of Hydrocarbons at a Nanopore Scale, Cretaceous Niobrara Formation, Denver Basin, Colorado”</i>	
CU Dept. of Geoscience Alumni Advisory Board Meeting – Poster	2018
* <i>“Superior Interpolation of Spatial Diffraction Data using Bayesian Deep Neural Networks”</i>	
RMAG Luncheon – Oral Presentation	2018
<i>“Characterizing Residual Migrated Hydrocarbons and their Role in Porosity Evolution”</i>	
RMAG/DWLS Fall Symposium – Oral Presentation	2017
<i>“Diagenetic controls on the spatial variability of carbonate pore systems within an unconventional chalk-marl reservoir — Testing paradigms of chalk diagenesis in the Cretaceous Niobrara Formation, Denver-Julesburg Basin”</i>	
SEPM Mountjoy II Carbonate Research Conference – Oral Presentation	2017
<i>“Diagenetic controls on the spatial variability of carbonate pore systems within the Niobrara chalk-marl reservoirs of the Denver-Julesburg Basin, Colorado”</i>	
CU Dept. of Geoscience Alumni Advisory Board Meeting – Poster	2017
<i>“Understanding the Scale of Calcite Mass Transfer in a Nanoporous Reservoir, Cretaceous Niobrara Formation, Denver Basin, Colorado”</i>	
AAPG Annual Convention and Exhibition – Oral Presentation	2017
<i>“Understanding the Scale of Calcite Mass Transfer in a Nanoporous Reservoir, Cretaceous Niobrara Formation, Denver Basin, Colorado”</i>	
AAPG Annual Convention and Exhibition – Poster	2015

- “Syn depositional Fault Control on Dolomitization of a Steep-Walled Carbonate Platform Margin, Yates Formation (Permian), Guadalupe Mountains, New Mexico”*
 Jackson School of Geosciences Annual Research Symposium – Poster 2014
“Evolution of Very Early “Embryonic” Fractures on West Caicos, Turks and Caicos Islands, British West Indies”
 RCRL Annual Meetings 2013, 2014
2014 Poster: “Dolomite Distribution and Isotope Geochemistry of the G24-G25 Shelf Margin System within the Cave Graben Fault System, Rattlesnake Canyon, New Mexico”
2013 Poster: “Syn depositional Fracturing on West Caicos: Fracture Styles, Mechanical Controls, and Early Diagenetic Patterns”
 * 2013 Oral Presentation: *“Use of UAVs for characterization of embryonic fractures on the West Caicos platform”*
 RCRL Core Workshop – Poster, Technical Presentation (core walkthrough) 2013
“An Early Cretaceous Patch Reef: The Knowles Limestone in Milam County, TX”
 Whiting Petroleum Lunch and Learn – Oral Presentation 2012
“Redox Boundaries and Geochemical Implications, Devonian Three Forks Formation, Williston Basin, North Dakota and Montana”

PROFESSIONAL ORGANIZATIONS

American Association of Petroleum Geologists (AAPG) – CU Student Chapter President AY15/16
 Rocky Mountain Association of Geologists (RMAG)
 Society for Sedimentary Geology (SEPM)
 Geological Society of America (GSA)
 Association of Environmental and Engineering Geologists (AEG)
 Clay Minerals Society (CMS)

SERVICE and OUTREACH

CU Graduate Student Representative to Faculty
 TIPS-trained bartender – serve alcoholic beverages to department faculty and student for weekly colloquia
 CU Alumni Advisory Board Meeting – organized poster session and graduate student review
 Graduate Student Representative for Sedimentology Faculty Search
 Research Experiences in Solid Earth Sciences for Students (RESESS) – Student intern Adobe Illustrator tutorials and poster review panel
 CU “Friday Lunch Series” – organize biweekly lunch meetings integrating graduate and undergraduate students and research fellows in the geoscience department
 CU “Grad Talk” – organize biweekly graduate student lunch presentations in the geoscience department
 CU Bradley New Grad Student Field Trip – returning graduate student driver; facilitate new graduate student activities and welcome experiences
 CU Athletes Summer Bridge – ran mock tutoring sessions for new student athletes to demonstrate the academic resources available to them
 UT “Cookie Committee” – provided snacks and coffee for twice-weekly technical sessions
 Boy Scout Day at Dinosaur Ridge – educate Boy Scouts about geoscience
 Classroom visits – geology-focused presentations about Earth to K-5 students in the Denver area

MENTORSHIP

Mike Dulay – Undergraduate research project working title: *“Spectral Analysis of Sub-Orbital Lithological Variation, Niobrara Formation, CO”*
 Toby Halamka – Undergraduate research project working title: *“Tracking Water-Use in Colorado’s Energy Exploration and Development”*
 Alexis Ahlert – Undergraduate research project working title: *“Investigating Hydraulic Communication between Wells during Hydraulic Fracturing Treatments in the Piceance Basin, Colorado, USA”*