MUDTOC CONSORTIUM: INCEPTION: JAN 1ST, 2016 (ONGOING)

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MUDTOC – RESEARCH IN PROGRESS

Permian Basin
3. Jennie Blake: Avalon/Bone Springs Fms, Delaware Basin, County TBD (Anticipated MS Geology, Fall 2019)

Powder River Basin
9. John Morgan: Skull Creek Formation of the Powder River Basin, WY (anticipated MS Geology, Fall 2018)
10. Lisa Reeves: The Parkman Sandstone Horizontal Play, Powder River Basin, WY (Anticipated MS Geology Spring 2018)
11. Alexa Socianu: Geochemical Insights...Mowry Shale, Southern Powder River Basin, WY (Anticipated PhD/GE Fall 2019)

Haynesville/Bossier

Appalachian Basin
14. Jason Eliasen: Marcellus/Utica Fm, Appalachian Basin – Title TBD (Anticipated MS Geology, Spring 2019)
17. Andrew Wood: Marcellus Shale, Appalachian Basin – Title TBD (Anticipated MS Geology, Spring 2019)

Anadarko Basin

Bakken

Vaca Muerta, (Argentina)

Niobrara
22. Lauren Bane: Stratigraphic Architecture and Resource Potential of the Niobrara Formation, Lowry Bombing Range Area, Arapahoe and Adams County, CO (Anticipated MS Geology, Fall 2018)
25. Walter Nelson: Characterization and Correlation of the Niobrara Interval, Northern San Juan Basin, CO (Anticipated MS Geology, Fall 2018)
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27. **Kira Timm**: The Petroleum Geology of the Pierre and Niobrara Formations in Florence, Canon City Region, South-Central, CO (Anticipated PhD Geology, Spring 2018)

MUDTOC CONSORTIUM COMPLETED RESEARCH (2017)

Powder River Basin

1. **Joshua Payne**: Geologic Characterization and Petroleum Potential of the Upper Cretaceous (Turonian) Wall Creek Member and Basement Involved Hinterland Vergent Backthrusting, Salt Creek Field, WY, U.S.A. (MS Geology Fall 2017)

Bakken

2. **James Friedrich**: Petroleum Geology of the Bakken and Upper Three Forks Formations, North Fork Field, McKenzie County, ND (MS Geology Spring 2017)

3. **Matt Bauer**: Production and Reservoir Characterization, Pronghorn Member, Bakken FM, Williston Basin, ND (MS Geology Fall 2017)

4. **Blake Herber**: Stratigraphy and Petroleum Potential of the Cottonwood Canyon Member, Madison Limestone, Northwest Wyoming (MS Geology, Fall 2017)

5. **Alyssa Charsky**: Integrating Process Sedimentology, Mineralogy, and Geomechanics for Development of a Mechanical Stratigraphy Model of the Bakken Formation, Montrail County, Williston Basin, ND (MS Geology Fall 2017)

6. **Dipanwita Nandy**: Dolomitization and Porosity Evolution of Middle Bakken member, Elm Coulee Field and Facies Characterization, Chemostratigraphy and Organic-Richness of Upper Bakken Shale, Williston Basin (PhD Candidate Geology, PhD Fall 2017)

Vaca Muerta

7. **Jessica Franklin/Dr. Steve Sonnenberg**: Structural analysis and hydrocarbon migration within the Loma Jarillosa Este area of the Neuquén Basin, Argentina (MS Geology Spring 2017)

8. **Dina Hegazy/Dr. Azra Tutuncu**: Flow analysis from hydraulic fractures and hydraulic fracture optimization in Vaca Muerta Fm., Neuquén Basin, Argentina (MS Student -> PhD in Petroleum Engineering Spring 2017)

*For all Research completed before given consortia was rolled into MUDTOC - See following lists*

BAKKEN CONSORTIUM – COMPLETED RESEARCH (2016)

1. **Steve Brennan**: Geochemical Controls on the Distribution of Carbonate Cement in the Middle Member Bakken Formation, Williston Basin, North Dakota (MS Geology, Spring 2016)

2. **Sanyog Kumar**: Upper and Lower Bakken Shale Production Contribution to the Middle Bakken Reservoir (MS→PhD PE, Spring 2016)

3. **Gary Listiono**: Petrographic Analysis of Middle Bakken Coarse-Grained Facies in Renville, Ward and Mountrail County, North Dakota (MS Geology, Spring 2016)

4. **Nathan Brown**: Petrographic Constraints for EOR in the Elm Coulee Field, Richland County, MT (MS Geology, Spring 2016)

5. **Andrew Graham**: Integrated Analysis of Waulsortian-Type Bioherms of the Lodgepole Formation: Stark County, North Dakota and Bridger Range, Montana (MS Geology, Spring 2016)

6. **Thomas Lockwood**: Outcrop and Subsurface Analysis of the Sappington member, Three Forks Formation, Central MT (MS Geology Spring 2016)

7. **Amanda Wescott**: Reservoir Characterization of the Bakken Formation, (focus on Middle Bakken Mbr), Fort Berthold Region, ND (MS Geology Spring 2016)
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BAKKEN CONSORTIUM – COMPLETED RESEARCH (2015)
8. **Spencer Rolfs**: Three Dimensional Seismic Characterization of the Bakken Formation with a Synthesis of Previous Work, Elm Coulee Field, Williston Basin, Montana (MS Geology, 2015)
9. **Zack Newnam**: Reservoir Quality of the Upper Three Forks, Fort Berthold Reservation, Williston Basin, ND (MS Geology, Fall 2015)

BAKKEN CONSORTIUM – COMPLETED RESEARCH (2014)
10. **Mohammed Al Duhailan**: Investigation of the factors controlling hydrocarbon-expulsion microfracturing in organic-rich mudrocks. (PhD Geology 2014)
12. **Katie Kocman**: Interpreting Depositional and Diagenetic Trends in the Bakken Formation Based on Handheld X-Ray Fluorescence Analysis, McLean, Dunn and Mountrail Counties, North Dakota (MS Geology 2014)

BAKKEN CONSORTIUM – COMPLETED RESEARCH (2013)
15. **Dylan Cobb**: Characteristics and Thickening Anomalies associated with the Lower Bakken Shale, Eastern Williston Basin, ND (MS Geology 2013)
16. **Lillian Comegys**: 9C-3D Seismic Interpretation of the Bakken Formation, Banner Field, North Dakota (MS Geophysics, 2013)
18. **Claudia Gutierrez**: Stratigraphy and Reservoir Characterization of the Three Forks Formation, Montrail County, ND (MS Geology 2013)
20. **Rebecca Johnson**: Three Forks/Pronghorn Stratigraphy & Facies Analysis (MS Geology 2013)
22. **Cosima Theloy**: Integration of Geological and Technological Factors Influencing Production in the Bakken Play, Williston Basin. (PhD Geology 2013)

BAKKEN CONSORTIUM – COMPLETED RESEARCH (2012)
23. **Virginia A. Gent**: Fourier Analysis of the Laminated Facies of the Middle Bakken Member, Sanish-Parshall Field, Mountrail County, ND (MS Geology 2012)

BAKKEN CONSORTIUM – COMPLETED RESEARCH (2011)
24. **Chloe Alexander**: Reservoir Characterization and Petrology of the Bakken Formation, Elm Coulee Field, Richland County, MT (MS Geology 2011)
25. **Adrian Almanza**: Integrated Three Dimensional Geological Model of the Devonian Bakken Formation Elm Coulee Field Williston Basin, Richland County, MT (MS Geology, 2011)
26. **Matt Billingsley**: Analysis of Facies and Fractures With Respect to Production in The Bakken Formation, Parshall/Sanish Fields, Williston Basin, North Dakota (MS Geology 2011)
27. **Jesse Havens**: Static & Dynamic Properties of the Bakken (MS Geology 2011)
**MUDTOC CONSORTIUM: INCEPTION: JAN 1ST, 2016 (ONGOING)**

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28. **Becky L. Kowalski**: Quantitative Mineralogic Analysis of the Middle Bakken Member,
29. Parshall Field Area, Mountrail County, North Dakota (MS Geology 2011)
30. **Vasilisa Nekhorosheva**: Stratigraphy, Diagenesis and Fracture characterization of the Three Forks Formation, Montana, Wyoming, South Dakota (MS Geology 2011)
31. **Andrea L. Simenson**: Depositional Facies and Petrophysical Analysis of the Bakken Formation, Parshall Field and Surrounding Area, Mountrail County, North Dakota (MS Geology 2011)
32. **Kene Mba**: Organic-rich Shale Maturity: Velocity and Impedance Study of Bakken Shale Samples (Petroleum Engineering Report)

**BAKKEN CONSORTIUM – COMPLETED RESEARCH (2010)**

33. **Stephen Angster**: Fracture Analysis of the Bakken Formation, Williston Basin. Field Studies in the Little Rocky Mountains and Big Snowy Mountains, MT and Beartooth Mountains, WY and 3D Seismic Data, Williston Basin (MS Geology 2010)
34. **Brian Berwick**: Depositional Environment, Mineralogy, and Sequence Stratigraphy of the Late Devonian Sanish Member (Upper Three Forks Formation), Williston Basin, North Dakota (MS, Geology 2010)
36. **Allaudin A. Gantyno**: Sequence Stratigraphy and Microfacies Analysis of the Late Devonian Three Forks Formation, Williston Basin, North Dakota and Montana, USA (MS Geology 2010)
37. **Aris Pramudito**: Depositional Facies, Diagenesis, and Petrophysical Analysis of the Bakken Formation, Elm Coulee Field, Williston Basin, Montana (MS Geology 2010)
38. **John Stroud**: The Role of the Lower Lodgepole Formation in the Bakken Petroleum System, Billings Nose, North Dakota (MS Geology 2010)
39. **James Vickery**: Lithofacies, Mineralogy and Ichnology of the Bakken Formation (Mississippian and Devonian), Williston Basin, MT & ND, USA (MS Geology 2010)

**VACA MUERTA CONSORTIUM – COMPLETED RESEARCH (2016)**

1. **Eider Hernandez-Bilbao/Dr. Steve Sonnenberg**: Reservoir Characterization and Chemostratigraphic Variability of the Vaca Muerta Formation, Neuquén Basin, Argentina (PhD Geology/GE, Spring 2016)
2. **Anton Padin/ Dr. Azra Tutuncu**: Rock mechanics integrated study on Vaca Muerta versus Eagle Ford reservoir analogs, in order to optimize stimulation. Primary focus on Eagle Ford. (PhD Petroleum Engineering, Spring 2016)

**VACA MUERTA CONSORTIUM – COMPLETED RESEARCH (2015)**

3. **Andrew Dietrich/Dr. Azra Tutuncu**: The Impact of Organic Content on Geomechanics and Anisotropy in the Vaca Muerta Shale: (MS Petroleum Engineering, 2015)
4. **Josefina D’Hiriart/Dr. Steve Sonnenberg**: Vaca Muerta Formation: Seismic Interpretation and Analysis of Cinco Saltos Area” (Professional MS Study Project 2015)

**VACA MUERTA CONSORTIUM – COMPLETED RESEARCH (2014)**

5. **Matt Herzog/Dr. Alfred (Bill) Eustes**: Pore Pressure, and the Interdependency between Lithology, Porosity, and Acoustic Log Response Targeting the Vaca Muerta Formation (MS Petroleum Engineering, Fall 2014)
6. **Ted Kernan/Dr. Steve Sonnenberg**: Interpretation and Integration of Log & Cuttings Data and their Relationship to Electrofacies Characteristics along Seismic Reflectors within the Loma La Lata Block, Vaca Muerta Formation, Argentina (MS Geology, Spring 2014)

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MUDTOC/NIBiRARA RESEARCH – IN PROGRESS - 2018 (first 6 duplicated from above for clarity here)

1. Lauren Bane: Stratigraphic Architecture and Resource Potential of the Niobrara Formation, Lowry Bombing Range Area, Arapahoe and Adams County, CO (Anticipated MS Geology, Fall 2018)
2. Cankut Kondakci: Geologic Reservoir Characterization of the Niobrara Formation in the SW Powder River Basin, WY (Anticipated MS Geology Spring 2018)
4. Walter Nelson: Characterization and Correlation of the Niobrara Interval, Northern San Juan Basin, CO (Anticipated MS Geology, Fall 2018)

NIBoRARA CONSORTIUM – COMPLETED RESEARCH (May 2017)

8. Evan Allred: Geochemical and Source Rock Analysis of the Sharon Springs Member of the Pierre Shale Formation, Denver & Piceance Basins, CO (Anticipated MS Geology, Spring 2017)
12. Michael Harty: Stratigraphy and Depositional Environment of the Upper Cretaceous Juana Lopez Member of The Benton Shale, North and Middle Park Basins, CO (Anticipated MS Geology, Spring 2017)
13. Julia Wood: Regional Petroleum Geology of the Fort Hays Member of the Niobrara Formation (Anticipated MS Geology, Spring 2017)

NIBoRARA CONSORTIUM – COMPLETED RESEARCH (2016)

17. Andrew Heger: Stratigraphy and Reservoir Characterization of the Turner Sandy Member of the Carlile Shale, Powder River Basin, Wyoming (MS Geology, December, 2016)

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18. **Marcus Hinricher**: A Comparison between Basin Margin Oil Potential and Basin Centered Dry Gas Potential within the Tow Creek Member of the Upper Cretaceous Niobrara- Mancos Shale, Piceance Basin, Colorado (MS Geology, Spring, 2016)

19. **John Stamer**: Geologic Reservoir Characterization of the Codell Sandstone, Wattenberg Field, CO (MS Geology, Spring, 2016)

**NIOBRA CONSORTIUM – COMPLETED RESEARCH (2015)**


22. **Lindsay Hefton**: Diagenesis of the B Bench and the Fort Hays Members of the Niobrara Formation, Denver Basin (MS Geology, 2015)

23. **Devin Murray**: Geo-Mechanical Rock Properties, Niobrara, DJ Basin (MS Geology, 2015)

24. **Kazumi Nakamura**: Isotopic and Elemental Chemostratigraphy and Sequence Stratigraphy of the Greenhorn, Carlile, and Niobrara Formations, Denver Basin, Colorado (PhD Candidate, Geology 2015)

25. **Denton O’Neal**: Chemostratigraphic and Petrographic Characterization of the Niobrara Fm., Cemex Lyons Quarry, Lyons CO (MS Geology, 2015)

26. **Jennie Rietman**: Petrographic and Biostratigraphic Assessment of the Niobrara, Wattenberg Field, CO (MS Geology, 2015)

**NIOBRA CONSORTIUM – COMPLETED RESEARCH (2014)**

27. **Elena Finley**: 3-D Seismic Characterization of the Niobrara Formation, Silo Field, Laramie County, WY (MS Geology)

28. **Nicholas Kernan**: Structural and Facies Characterization of the Niobrara Formation in Goshen and Laramie Counties, Wyoming (MS Geology)

**NIOBRA CONSORTIUM – COMPLETED RESEARCH (2013)**

29. **Tom Arthur**: Petroleum Geology of the Greater West Puerto Chiquito Field Area in Rio Arriba County, San Juan Basin, New Mexico (MS, Geology)

30. **Armagan Kaykun**: Sequence Stratigraphy of Lower Pierre Shale, Southern Powder River Basin, WY (MS, Geology)

31. **Martin Krueger**: Stratigraphy and Petroleum Potential of the Niobrara Fm, Piceance Basin, NW CO (MS, Geology)

32. **Vivian Lin**: Three dimensional Seismic Characterization of the Niobrara Fm, Moffat County, NW CO (MS, Geology)

33. **David Underwood**: Polygonal Fault Systems: A New Structural Style for the Niobrara Formation (MS, Geology)

**NIOBRA CONSORTIUM - COMPLETED RESEARCH (2012)**

34. **Kelly Bruche**: Regional Correlation of the Niobrara Formation Using Detailed Outcrop Studies, Sandwash Basin (MS, Geology)

35. **Mike Collins**: Natural Fracture Intensity and Mechanical Stratigraphy of the Niobrara Formation, Denver Basin (MS, Geology)

36. **Craig Kaiser**: A Petrophysical Analysis of the Petroleum Potential within the Greenhorn and Graneros Formations, Greater Wattenberg Area, North-Central Colorado (MS, Geology)

37. **Teresa Malesardi**: Petroleum Geology of Silo Field, Laramie County, Wyoming (MS, Geology)

38. **Melanie Peterson**: Tectonic Signatures Within and Above the Niobrara Formation in Denver Basin (MS, Geology)

39. **Lauren Stout**: Determining Carbon Isotope Stratigraphy of the Cretaceous Niobrara Formation (MS, Geology)

40. **James Taylor**: Petroleum Potential Niobrara Formation, Southern Powder River Basin (MS, Geology)

41. **David Thul**: Niobrara source Rocks of the Denver, Powder & Greater Green River Basins (MS, Geology)
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NIORARA CONSORTIUM – COMPLETED RESEARCH (2011)

42. **Adam Anderson**: Codell Sandstone, northern Denver Basin (MS, Geology)

43. **Katarzyna Kuzniak**: New Stratigraphic Interpretations, Geochemistry, and Petrophysics of the Lower Mancos Group, Douglas Creek Arch, Northwestern Colorado, U.S.A. (MS, Geology)

44. **Alejandra Maldonado**: A Hydraulic Fracture Model for the Niobrara Formation (MS, Geology)