

## Kelly Keighley Bradbury, Ph.D, P.G.

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Research Assistant Professor  
Dept. of Geology G04A  
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### EDUCATION

- Ph.D.** Geology, Utah State University, Logan UT (Dr. James P. Evans, Advisor) 2012  
*Dissertation: Geological, Geochemical, & Geophysical properties of Fault Rocks at SAFOD: Implications for Fault-related Processes, San Andreas Fault, California*
- M.S.** Geology, Utah State University, Logan, UT (Dr. James P. Evans, Advisor) 1999
- B.S.** Major: Geology, Minor: Mathematics, Western Michigan University, Kalamazoo, MI 1993

### PROFESSIONAL WORK EXPERIENCE

- Research Assistant Professor - Dept. of Geology, USU, Logan, UT [July 2016 – present]  
XRD Lab Technician - Dept. of Geology, USU, Logan, UT [June 2013 – present]  
Adjunct Professor / Research Scientist - Dept. of Geology, USU, Logan, UT [Dec 2013 – June 2016]  
Well-site Geologist / Core Logger - DES/DOSECC, Salt Lake City, UT [2013]  
Senior Exploration Geologist - High Desert Gold Corporation, Denver, CO [March 2013-Nov 2013]  
Exploration Manager - Paris Hills Agricom, Bloomington, ID [March 2011-March 2013]  
Structural Geologist Consultant - Smithfield, UT [July 2001 – Jan 2007]  
Principal Geoscientist - UF<sup>3</sup>, North, Logan, UT [June 2002 – Aug 2007]

### RESEARCH GRANT FUNDING AWARDED

- PI: U.S.G.S. \$59,914.05 (2017) *Scientific Borehole in Northeast Iowa*
- PI: SCEC \$15,000 (2017) *Textural, Geochemical, and Thermal Signatures within the Southern San Andreas Fault: Evidence for Thermally Activated Dynamic Weakening*
- Co-I: NSF-EARTHSCOPE GRANT \$186,607 (2016) *Evidence for Dynamic Weakening Mechanisms in the San Andreas Fault: Microgeochemistry and microthermometry of Fault-related Rocks from SAFOD core and Exhumed Faults*
- Co-I: SCEC \$25,000 (2016) *Textural, Geochemical, and Thermal Signatures within the Southern San Andreas Fault: Evidence for Thermally Activated Dynamic Weakening*
- Co-I: U.S.G.S. NEHRP \$59,725 (2015) *The Analysis of Scaling of Fault-related Processes: Fluid-rock Interactions and Slip processes from the mm to 10's km Scale of Slip*
- Co-I: U.S.G.S. NEHRP \$157,548 (2015) *The Hydrologic Connection Between Basal Reservoir Injection, Micro/Mesoscale Crystalline Basement Fault Zones and Induced Seismicity: Collaborative Research with Utah State University and New Mexico Tech*
- FELLOW: GDL Foundation Res. Grant \$4000 (2014) *Fluid-rock Reactions Related to Deformation within Organic-and Vanadium-rich Upper Meade Peak Member of the Phosphoria Formation, Southeast Idaho*

## PUBLICATIONS (\*graduate students; \*\*undergraduate students)

- Kessler, J.A.\*, **Bradbury, K.K.**, Evans, J.P., Pulsipher, M.A.\*\* , Schmitt, D.R., Shervais, J.W., Rowe, F.E.\*\*, and Varriale, J.\*\*, 2017, Geology and in situ stress of the MH-2 borehole, Idaho, USA: Insights into western Snake River Plain structure from geothermal exploration drilling, LITHOSPHERE.
- Bradbury, K.K.**, Davis, C.\*\* , Janecke, S.U., Shervais, J., & Evans, J.P., 2015, Micro-scale composition & texture of fault related rocks from SAFOD core and natural analogs: evidence for deformation processes and fluid-rock interactions, PAGEOPH, 172, 5, doi: 10.1007/s00024-014-0896-6.
- Dinwiddie, C.L., **Bradbury, K.K.**, McGinnis, R.N., Stillman, D.E., & Ferrill, D.A., 2012, Hydrogeologic heterogeneity of faulted & fractured Glass Mountain bedded tuffaceous sediments & ash-fall deposits: The Crucifix site near Bishop, California: Lithosphere, p. 44-62. <http://lithosphere.gsapubs.org/content/4/1/40.abstract>
- Bradbury, K.K.**, Chester, J., Chester, F., Kirschner, Evans, J.P., 2011, Lithology & internal structure of the San Andreas fault based on characterization of Phase 3 whole-rock core in the San Andreas Fault Observatory at Depth (SAFOD) borehole, Earth & Planetary Science Letters.
- Jeppson, T. J.\*\* , **Bradbury, K.K.**, & Evans, J. P., 2010, Geophysical Properties within the San Andreas Fault Zone at the San Andreas Fault Observatory at Depth (SAFOD), & their relationships to rock properties & fault zone structure, Journal of Geophysical Research, 115, B12423, doi: 10.1029/2010JB007563.
- Bradbury, K.K.**, Barton, D.C.\*\* , Solum, J.G., Draper, S.D.\* , & Evans, J.P., 2007, Mineralogical & textural analyses of drill cuttings from the San Andreas Fault Observatory at Depth (SAFOD) boreholes: Initial interpretations of fault zone composition & constraints on geologic models, *Geosphere*, 3; doi:10.1130/GES00076.1.
- Evans, J.P., & **Bradbury, K.K.**, 2007, Fractured Dirt: Deformation Textures & Processes in Sediment & Other Unconsolidated Deposits, *Geology*, 35, p. 671-672.
- Dinwiddie, C.L., **Bradbury, K.K.**, McGinnis, R.N., Fedors, R.W., & Ferrill, D.A., 2006, Fault zone deformation overprints & permeability of nonwelded ignimbrite: Chalk Cove fault, Bishop Tuff, California, *Vadose Zone Journal*, 5, 610-627.
- Evans, J.P., & **Bradbury, K.K.**, 2004, Faults & fractures in poorly & non-welded portions of the Bishop Tuff, eastern California: Analogs for unsaturated zone flow at Yucca Mountain, Nevada: *Vadose Zone Journal*, 3, 602-623.