



**USGS Mineral Resources Program & Funded Science  
Center Participation — American Geophysical Union  
Fall Meeting 2014**

**Dec. 15-19, 2014, San Francisco, CA**

<https://agu.confex.com/agu/fm14/preliminaryview.cgi/index.html>

**Monday, December 15, 2014**

**T11A Active Tectonics and Magmatism of Alaska, the Aleutians, and Northwest Canada Posters**

8:00 AM – 12:20 PM, Moscone South, Poster Hall

**T11A-4527 Seismic Velocity and Thickness of Sediments Beneath the Aleutian Basin, Bering Sea**

*Daniel S Scheirer<sup>1</sup>, Ginger A Barth<sup>2</sup>, Ray W Sliter<sup>3</sup>, Patrick E Hart<sup>3</sup> and Jonathan R Childs<sup>4</sup>, (1)USGS, GMEG Science Center, Baltimore, MD, United States, (2)USGS, PCM Science Center, Menlo Park, CA, United States, (3)Pacific Coastal and Marine Science Center Santa Cruz, Santa Cruz, CA, United States, (4)USGS, PCM Science Center, Baltimore, MD, United States*

**T11A-4538 Diverse Approaches USED to Characterize the Earthquake and Tsunami Hazards Along the Southern Alaska Continental Margin**

*Peter J Haeussler<sup>1</sup>, Robert Carleton Witter<sup>1</sup>, Lee M Liberty<sup>2</sup>, Daniel S Brothers<sup>3</sup>, Richard W Briggs<sup>4</sup>, Phillip A Armstrong<sup>5</sup>, Jeffrey Todd Freymueller<sup>6</sup>, Tom Parsons<sup>7</sup>, Holly F Ryan<sup>8</sup>, Homa J Lee<sup>8</sup> and Emily C Roland<sup>1</sup>, (1)USGS Alaska Science Center, Anchorage, AK, United States, (2)Boise State Univ, Boise, ID, United States, (3)Pacific Coastal and Marine Science Center Santa Cruz, Santa Cruz, CA, United States, (4)US Geological Survey, Denver, CO, United States, (5)California St Univ Fullerton, Fullerton, CA, United States, (6)University of Alaska Fairbanks, Fairbanks, AK, United States, (7)USGS California Water Science Center Menlo Park, Menlo Park, CA, United States, (8)USGS, Menlo Park, CA, United States*

**T11A-4544 Updated mapping and seismic reflection data processing along the Queen Charlotte fault system, southeast Alaska**

*Maureen A L Walton<sup>1</sup>, Sean P S Gulick<sup>1</sup>, Peter J Haeussler<sup>2</sup>, Kristin Rohr<sup>3</sup>, Emily C Roland<sup>4</sup> and Anne M Trehu<sup>5</sup>, (1)University of Texas at Austin, Institute for Geophysics, Austin, TX, United States, (2)USGS Alaska Science Center, Anchorage, AK, United States, (3)Kristin Rohr Consulting, Victoria, BC, Canada, (4)University of Washington Seattle Campus, School of Oceanography, Seattle, WA, United States, (5)Oregon State University, Corvallis, OR, United States*

**T11A-4545 Aftershock source properties of events following the 2013 Craig Earthquake: new evidence for structural heterogeneity on the northern Queen Charlotte Fault**

*Emily C Roland<sup>1</sup>, Maureen A L Walton<sup>2</sup>, Natalia A Ruppert<sup>3</sup>, Sean P S Gulick<sup>2</sup>, Gail Lynn Christeson<sup>2</sup> and Peter J Haeussler<sup>4</sup>, (1)University of Washington Seattle Campus, School of Oceanography, Seattle, WA, United States, (2)University of Texas at Austin, Institute for Geophysics, Austin, TX, United States, (3)University of Alaska Fairbanks, Fairbanks, AK, United States, (4)USGS Alaska Science Center, Anchorage, AK, United States*

**EP12B To See the World in a Grain of Sand: Novel Applications and Important Limitations of Detrital Analyses in Sedimentology, Tectonics, and Geomorphology II (Presentations)**

Monday, December 15, 2014, 08:00 AM - 12:20 PM, Moscone South, Poster Hall

**EP12B-06 Detrital thermochronology of the Alaska Range: Exhumation during Cenozoic subduction and translation (11:35 AM-11:50AM)**

*Richard O Lease<sup>1</sup>, Peter J Haeussler<sup>1</sup> and Paul Brian O Sullivan<sup>2</sup>, (1)USGS Alaska Science Center, Anchorage, AK, United States, (2)Apatite to Zircon Inc., Viola, ID, United States*

**G11A Plate Motion, Continental Deformation, Interseismic Strain Accumulation I Posters**

Monday, December 15, 2014, 08:00 AM - 12:20 PM, Moscone West, Poster Hall

**G11A-0468 Strain partitioning and timing of strike-slip faulting in the central Mojave Desert, CA, indicated by newly dated Pliocene and lower Pleistocene deposits**

*David M Miller<sup>1</sup>, Perach Nuriel<sup>2</sup>, Jessica Leigh Oster<sup>3</sup>, Kevin M Schmidt<sup>4</sup>, Marith C Reheis<sup>5</sup>, Brett F. Cox<sup>1</sup> and Katharine Maher<sup>2</sup>, (1)US Geological Survey, Menlo Park, CA, United States, (2)Stanford University, Geology Department, Stanford, CA, United States, (3)Stanford-Geology & Env Science, Stanford, CA, United States, (4)USGS Western Regional Offices Menlo Park, Menlo Park, CA, United States, (5)USGS MS 980, Lakewood, CO, United States*

**G11A-0470 Synthetic velocity gradient map of the San Francisco Bay region, California, supports use of average block velocities to estimate fault slip rate where effective locking depth is small relative to inter-fault distance**

*Russell Walter Graymer, US Geological Survey, Menlo Park, CA, United States and Robert W Simpson, USGS, Menlo Park, CA, United States*

**H11A Water Quality of Hydrologic Systems Posters**

Monday, December 15, 2014, 08:00 AM - 12:20 PM, Moscone West, Poster Hall

**H11A-0853 Using Halogens (Cl, Br, F, I) and Stable Isotopes of Water ( $\delta^{18}\text{O}$ ,  $\delta^2\text{H}$ ) to Trace Hydrological and Biogeochemical Processes in Prairie Wetlands**

*Zeno Francis Levy<sup>1</sup>, Zunli Lu<sup>1</sup>, Christopher T Mills<sup>2</sup>, Martin B Goldhaber<sup>3</sup>, Donald O Rosenberry<sup>2</sup>, David Mushet<sup>4</sup>, Donald I Siegel<sup>5</sup>, Anthony J Fiorentino II<sup>1</sup>, Max Gade<sup>1</sup> and Jeff Spradlin<sup>1</sup>, (1)Syracuse University, Syracuse, NY, United States, (2)USGS Central Region Office, Lakewood, CO, United States, (3)USGS-Denver Federal Center, Denver, CO, United States, (4)USGS, Northern Prairie Wildlife Research Center, Jamestown, ND, United States, (5)Syracuse University, Earth Sciences, Syracuse, NY, United States*

**V11B Physical Volcanology and Volcano Development in Aqueous and Terrestrial Environments Posters**

Monday, December 15, 2014, 08:00 AM - 12:20 PM, Moscone South, Poster Hall

**V11B-4697 The emergence and evolution of Santa Maria Island (Azores) - the conundrum of uplifting islands revisited**

*Ricardo S Ramalho<sup>1,2</sup>, George R Helffrich<sup>3</sup>, José Madeira<sup>4,5</sup>, Michael A Cosca<sup>6</sup>, Rui Quartau<sup>5,7</sup>, Christine Thomas<sup>8</sup>, Ana Hipólito<sup>9</sup> and Sérgio P Ávila<sup>10,11</sup>, (1)Lamont -Doherty Earth Observatory, Palisades, NY, United States, (2)University of Bristol, School of Earth Sciences, Bristol, United Kingdom, (3)Tokyo Institute of Technology, Tokyo, Japan, (4)Universidade de Lisboa, Departamento de Geologia, Lisbon, Portugal, (5)Instituto Dom Luiz, Universidade de Lisboa, Lisboa, Portugal, (6)USGS, Denver, CO, United States, (7)Instituto Português do Mar e Atmosfera, Divisão de Geologia e Georecursos Marinhos, Lisboa, Portugal, (8)University of Münster, Münster, Germany, (9)Universidade dos Açores, Centro de Vulcanologia e Avaliação de Riscos Geológicos, Ponta Delgada, Portugal, (10)CIBIO, Ponta Delgada, Portugal, (11)Universidade dos Açores, Departamento de Biologia, Ponta Delgada, Portugal*

**T12B Intraplate Seismicity in a Geodynamic and Tectonic Context: Do Unconventional Stresses Generate Unconventional Seismicity? I (Presentations)**

Monday, December 15, 2014, 10:20 AM - 12:20 PM, Marriott Marquis, Salon 13-15

**T12B-07 Recent Fault Activity in the 1886 Charleston, South Carolina Earthquake Epicentral Area and its Relation to Buried Structures (11:50AM-12:05PM)**

*Thomas L Pratt<sup>1</sup>, Anjana K Shah<sup>2</sup>, J. Wright Horton Jr<sup>1</sup>, Martin C Chapman<sup>3</sup> and Jacob Beale<sup>3</sup>, (1)USGS, Reston, VA, United States, (2)USGS, Denver Federal Center, Denver, CO, United States, (3)Virginia Polytech Inst & St Un, Blacksburg, VA, United States*

**EP13F From Ridge to Reef: Terrestrial Sediment Impacts to Coral Reef Ecosystems II (Presentations)**

Monday, December 15, 2014, 01:40 PM - 03:40 PM, Moscone West, 2005

**EP13F-03 From Ridge to Reef, Quantifying Sediment Pollution to Hawaiian Coral Reefs**

*Jonathan D Stock<sup>1</sup>, Todd Ericksen<sup>2</sup>, Gordon Tribble<sup>3</sup> and Jim Jacobi<sup>3</sup>, (1)US Geological Survey, Menlo Park, CA, United States, (2)HIGP, Honolulu, HI, United States, (3)US Geological Survey, PIERC, Honolulu, HI, United States*

**EP13D Time in Strata: Challenges to Interpreting Stratigraphic Records Posters**

Monday, December 15, 2014, 01:40 PM - 06:00 PM, Moscone South, Poster Hall

**EP13D-3549 Absolute age constraints on rapid, axial progradation of a high-relief clinof orm depositional system in the Colville foreland basin, Arctic Alaska**

*David W Houseknecht, USGS Headquarters, Reston, VA, United States, Richard O Lease, USGS Alaska Science Center, Anchorage, AK, United States and Andrew R Kylander-Clark, University of California Santa Barbara, Santa Barbara, CA, United States*

**PA13A Critical Zone Science: Can Science Leadership Keep Pace with Emergent Societal Needs? Posters**

Monday, December 15, 2014, 01:40 PM - 06:00 PM, Moscone South, Poster Hall

**PA13A-3892 Critical Zone Science and Global Societal Challenges**

*Martin B Goldhaber, USGS-Denver Federal Center, Denver, CO, United States and Steven A. Banwart, University of Sheffield, Sheffield, United Kingdom*

**C14A Arctic Hydrology in a Changing Climate II (Presentations)**

Monday, December 15, 2014, 04:00 PM - 06:00 PM, Moscone West, 3005

**C14A-03 Hydrogeologic Controls on Water Dynamics in a Discontinuous Permafrost, Lake-Rich Landscape (Invited) (04:30PM-04:45PM)**

*Michelle A Walvoord<sup>1</sup>, Martin A Briggs<sup>2</sup>, Frederick David Day-Lewis<sup>2</sup>, Steven M Jepsen<sup>3</sup>, John W Lane Jr<sup>2</sup>, Jeffrey M McKenzie<sup>4</sup>, Burke J Minsley<sup>1</sup>, Robert G Strieg<sup>5</sup>, Clifford I Voss<sup>6</sup> and Tristan P Wellman<sup>1</sup>, (1)USGS, Denver, CO, United States, (2)USGS, Storrs, CT, United States, (3)University of California Merced, Merced, CA, United States, (4)McGill University, Montreal, QC, Canada, (5)USGS WRD, Boulder, CO, United States, (6)USGS, Menlo Park, CA, United States*

**Tuesday, December 16, 2014**

**V21B What Can Pyroclasts Tell Us? III Posters**

Tuesday, December 16, 2014, 08:00 AM - 12:20 PM, Moscone South, Poster Hall

**V21B-4755 Tephrostratigraphic and paleomagnetic correlations of the Miocene Peach Spring Tuff (PST) in the Alvord Mountain Area, central Mojave Desert, California**

*David Buesch and John Hillhouse, US Geological Survey, Menlo Park, CA, United States*

**GP21A Geomagnetism and Paleomagnetism General Contributions II Posters**

Tuesday, December 16, 2014, 08:00AM – 12:20PM, Moscone South, Poster Hall

**GP21A-3641 Paleomagnetism and <sup>40</sup>Ar/<sup>39</sup>Ar Geochronology of the Plio-Pleistocene Boring Volcanic Field: Implications for the Geomagnetic Polarity Time Scale**

*Jonathan T Hagstrum<sup>1</sup>, Robert J Fleck<sup>1</sup>, Russell C Evarts<sup>1</sup>, Andrew T Calvert<sup>1</sup> and Richard M Conrey<sup>2</sup>, (1)U.S. Geological Survey, Menlo Park, CA, United States, (2)WSU GeoAnalytical Laboratory, Pullman, WA, United States*

**GP21A-3646 Paleomagnetic Correlation of Late Miocene-Pliocene Basalt Flows in the Northwestern Basin and Range: Documenting Timing of Faulting, Volcanism and Vertical-axis Rotation in Surprise Valley, Northeastern California**

*Brent T. Ritzinger<sup>1,2</sup>, Jonathan M.G. Glen<sup>3</sup> and Anne E Egger<sup>2</sup>, (1)USGS, Baltimore, MD, United States, (2)Central Washington University, Geological Sciences and Science Education, Ellensburg, WA, United States, (3)USGS, Menlo Park, CA, United States*

**GC21D Impacts of Global Change on Deltas and Coastal Wetland Ecosystems: Scientific Advances in Support of Socioecological Resilience I Posters**

Tuesday, December 16, 2014, 08:00 AM - 12:20 PM, Moscone West, Poster Hall

**GC21D-0568 Late Holocene Environmental History of the Los Osos Watershed, Morro Bay, CA**

*Elinor Broadman*, University of California Berkeley, Geography, Berkeley, CA, United States, *Liam M Reidy*, University of California Berkeley, Berkeley, CA, United States and *David Wahl*, USGS, Baltimore, MD, United States

**V21A Dynamics of Continental and Submarine Hydrothermal Systems IV Posters**

Tuesday, December 16, 2014, 08:00AM - 12:20PM, Moscone South, Poster Hall

**V21A-4724 Modeling Heat Transfer, Fluid Circulation and Permeability Alteration in Hydrothermal Systems with Loose Coupling to Magmatic Intrusion Modeling in the Lower Crust**

*Joshua Taron*<sup>1</sup>, *Ozge Karakas*<sup>2</sup>, *Margaret Mangan*<sup>1</sup>, *Josef Dufek*<sup>2</sup>, *Steve Ingebritsen*<sup>1</sup>, *Stephen H Hickman*<sup>1</sup> and *Colin Francis Williams*<sup>1</sup>, (1)US Geological Survey, Menlo Park, CA, United States, (2)Georgia Institute of Technology Main Campus, Atlanta, GA, United States

**H21M Numerical Modelling of Geo-Energy Related Physical Processes in Geological Systems I (Presentations)**

Tuesday, December 16, 2014, 08:00AM – 10:00AM, Moscone West, 3018

**H21M-04 Modeling the Impact of Multiple Physical Processes on the Stimulation and Longevity of Enhanced Geothermal Systems (Invited) (08:45AM-09:00AM)**

*Joshua Taron*, *Colin Francis Williams*, *Stephen H Hickman* and *Steve Ingebritsen*, US Geological Survey, Menlo Park, CA, United States

**T21E Shallow Properties of Fault Zones I (Presentations)**

Tuesday, December 16, 2014, 08:00AM – 10:00AM, Marriot Marquis, Nob Hill A-D

**T21E-06 Geometry of the San Andreas Fault and Sedimentary Basin in the Northern Salton Trough (09:15AM-09:30AM)**

*Gary S Fuis*<sup>1</sup>, *Klaus Bauer*<sup>2</sup>, *Rufus Catchings*<sup>1</sup>, *Mark Goldman*<sup>1</sup>, *Trond Ryberg*<sup>2</sup>, *Daniel S Scheirer*<sup>3</sup>, *Victoria E Langenheim*<sup>4</sup>, *Michael J Rymer*<sup>4</sup>, *Patricia Persaud*<sup>5,6</sup>, *Joann M Stock*<sup>2</sup> and *John A Hole*<sup>7</sup>, (1)USGS, Earthquake Science Center, Menlo Park, CA, United States, (2)GeoForschungsZentrum Potsdam, Potsdam, Germany, (3)USGS, GMEG Science Center, Baltimore, MD, United States, (4)USGS, GMEG Science Center, Menlo Park, CA, United States, (5)California Institute of Technology, Pasadena, CA, United States, (6)California State Polytechnic University Pomona, Pomona, CA, United States, (7)Virginia Polytechnic Institute and State University, Blacksburg, VA, United States

**PA23A Public Affairs General Contributions Posters**

Tuesday, December 16, 2014, 01:40PM - 06:00PM, Moscone South, Poster Hall

**PA23A-4034 Diagramming Scientific Papers – A New Idea for Understanding/Teaching/Sharing Science**

*Richard Ward Saltus*, USGS, Baltimore, MD, United States and *Maurizio Fedi*, University Federico II Napoli, Napoli, Italy

**H23C Natural and Anthropogenic Contamination of Water Resources Related to Oil and Gas Production from Unconventionals: Processes, Monitoring, and Stewardship II Posters**

Tuesday, December 16, 2014, 01:40PM - 06:00PM, Moscone West, Poster Hall

**H23C-0885 Airborne Geophysical Surveys Applied to Hydrocarbon Resource Development Environmental Studies**

*Bruce D Smith*<sup>1</sup>, *Lyndsay B Ball*<sup>2</sup>, *Carol Finn*<sup>2</sup>, *Andy Kass*<sup>3</sup> and *Joanna Thamke*<sup>4</sup>, (1)U.S. Geological Survey, Lakewood, CO, United States, (2)USGS, Denver, CO, United States, (3)United States Geological Survey, Arvada, CO, United States, (4)U.S. Geological Survey, Helena, MT, United States

**EP23E Using Biogeochemical Tracers to Measure Mass and Energy Fluxes in the Critical Zone Posters**

Tuesday, December 16, 2014, 01:40PM - 06:00PM, Moscone South, Poster Hall

**EP23E-3633 Critical Zone Weathering and Your Smartphone: Understanding How Mineral Decomposition and Colloid Redistribution Can Generate Rare Earth Element Deposits**

*Carleton Bern*, USGS, Crustal Geophysics and Geochemistry Science Center, Denver, CO, United States and *Nora Foley*, US Geological Survey, Reston, VA, United States; USGS, Eastern Mineral and Environmental Resources Science Center, Reston, VA, United States

**GP23B Paleomagnetic and Rock Magnetic Aspects of Chronostratigraphy II Posters**

Tuesday, December 16, 2014, 01:40PM - 06:00PM, Moscone South, Poster Hall

**GP23B-3682 Initial Paleomagnetic Results from a New Drill Core from Clear Lake, California**

*Emily Levin*<sup>1</sup>, *Roger Byrne*<sup>2</sup>, *Cindy V Looy*<sup>2</sup>, *David Wahl*<sup>3</sup>, *Anders J Noren*<sup>4</sup> and *Kenneth L Verosub*<sup>1</sup>, (1)University of California Davis, Davis, CA, United States, (2)University of California Berkeley, Berkeley, CA, United States, (3)U.S. Geological Survey, Menlo Park, CA, United States, (4)University of Minnesota, Minneapolis, MN, United States

**S23C Imaging the Earth III Passive and Active Source Studies of the Crust Posters**

Tuesday, December 16, 2014, 01:40PM - 06:00PM, Moscone South, Poster Hall

**S23C-4512 3-D Velocity Model of the Coachella Valley, Southern California Based on Explosive Shots from the Salton Seismic Imaging Project**

*Patricia Persaud*<sup>1,2</sup>, *Joann M Stock*<sup>1</sup>, *Gary S Fuis*<sup>3</sup>, *John A Hole*<sup>4</sup>, *Mark Goldman*<sup>3</sup> and *Daniel S Scheirer*<sup>3</sup>, (1)California Institute of Technology, Pasadena, CA, United States, (2)California State Polytechnic University Pomona, Pomona, CA, United States, (3)US Geological Survey, Menlo Park, CA, United States, (4)Virginia Polytechnic Institute and State University, Blacksburg, VA, United States

**PP23C Tarn to Terminus: Hydrology, Limnology, and Paleoenvironmental Records of Terminal Lake Systems Posters**

Tuesday, December 16, 2014, 01:40PM - 06:00PM, Moscone West, Poster Hall

**PP23C-1407 *Siphateles (Gila) sp.* and *Catostomus sp.* from the Pleistocene OIS-6 Lake Gale, Panamint Valley, Owens River system, California**

*Angela S Jayko*, USGS, GEMGSC, Bishop, CA, United States, *Richard M Forester*, Earth Surface Processes Team, USGS, retired, Denver, CO, United States and *Gerald Ray Smith*, University of Michigan, Ann Arbor, MI, United States

**IN23D Using Open Source Software to Enable Scientific Analysis and Reuse of Data III Posters**

Tuesday, December 16, 2014, 01:40PM - 06:00PM, Moscone South, Poster Hall

**IN23D-3757 A prototype for automation of land-cover products from Landsat Surface Reflectance Data Records**

*Jennifer Rover*<sup>1</sup>, *Martin B Goldhaber*<sup>2</sup>, *Daniel Steinwand*<sup>1</sup>, *Kurtis Nelson*<sup>1</sup>, *Michael Coan*<sup>3</sup>, *Bruce K Wylie*<sup>1</sup>, *Devendra Dahal*<sup>3</sup>, *Steve Wika*<sup>3</sup> and *Robert Quenzer*<sup>3</sup>, (1)USGS Earth Resources Observation and Science Center, Sioux Falls, SD, United States, (2)USGS-Denver Federal Center, Denver, CO, United States, (3)Stinger Ghaffarian Technologies (SGT, Inc.), Sioux Falls, SD, United States

**V23G The Geochemical Diversity of the Mantle Inferred from Hotspots: Five Decades of Debate II (Presentations)**

Tuesday, December 16, 2014, 01:40PM – 03:40PM, Marriot Marquis, Salons 1-3

**V23G-03 The Origin of Chemical Heterogeneity in the Mantle Source of Kilauea Lavas (02:10PM-02:25PM)**

*Dale H Burns*, University of Iowa, Iowa City, IA, United States, *Aaron J Pietruszka*, United States Geological Survey, Denver, CO, United States, *Jared P Marske*, Carnegie Inst Washington, Washington, DC, United States, *Marc D Norman*, Australian National University, Canberra, ACT, Australia and *Michael O Garcia*, Univ Hawaii, Honolulu, HI, United States

**Wednesday, December 17, 2014**

**GP31B Imaging Near-Surface to Deep Lithospheric Structure Using Gravity, Magnetic, and Electromagnetic Methods I (Presentations)**

Wednesday, December 17, 2014, 08:00 AM – 10:00 AM, Moscone South, 300

**GP31B-01 The Effect of Finite Thickness Extent on Estimating Depth to Basement from Aeromagnetic Data (08:00AM-08:15AM)**

*Ahmed Salem<sup>1</sup>, Richard J Blakely<sup>2</sup>, Chris M Green<sup>3</sup>, Derek Fairhead<sup>1</sup> and Dhananjay Ravat<sup>4</sup>, (1)GETECH, Leeds, United Kingdom, (2)USGS, Menlo Park, CA, United States, (3)University of Leeds, Leeds, LS2, United Kingdom, (4)University of Kentucky, Lexington, KY, United States*

**GP31B-063D Geometry of Fault Intersections in Central California: The Importance of Ultramafic Ophiolitic Rocks (Invited) (09:15AM-09:30AM)**

*Janet Tilden Watt<sup>1</sup>, David A Ponce<sup>2</sup> and Samuel Y Johnson<sup>1</sup>, (1)USGS, Santa Cruz, CA, United States, (2)U.S. Geological Survey, Menlo Park, CA, United States*

**GP31B-08 Geophysical expression of a buried niobium and rare earth element deposit: the Elk Creek carbonatite, Nebraska, USA (Invited) (09:45AM-10:00AM)**

*Benjamin Drenth<sup>1</sup>, Jeffrey D Phillips<sup>1</sup>, Andy Kass<sup>1</sup> and Richard A Krahenbuhl<sup>2</sup>, (1)USGS, Denver, CO, United States, (2)Colorado School of Mines, Golden, CO, United States*

**V11B Physical Volcanology and Volcano Development in Aqueous and Terrestrial Environments Posters**

Wednesday, December 17, 2014, 08:00 AM – 12:20 PM, Moscone South, Poster Hall

**V11B-4697 The emergence and evolution of Santa Maria Island (Azores) - the conundrum of uplifting islands revisited**

*Ricardo S Ramalho<sup>1,2</sup>, George R Helffrich<sup>3</sup>, José Madeira<sup>4,5</sup>, Michael A Cosca<sup>6</sup>, Rui Quartau<sup>5,7</sup>, Christine Thomas<sup>8</sup>, Ana Hipólito<sup>9</sup> and Sérgio P Ávila<sup>10,11</sup>, (1)Lamont -Doherty Earth Observatory, Palisades, NY, United States, (2)University of Bristol, School of Earth Sciences, Bristol, United Kingdom, (3)Tokyo Institute of Technology, Tokyo, Japan, (4)Universidade de Lisboa, Departamento de Geologia, Lisbon, Portugal, (5)Instituto Dom Luiz, Universidade de Lisboa, Lisboa, Portugal, (6)USGS, Denver, CO, United States, (7)Instituto Português do Mar e Atmosfera, Divisão de Geologia e Georecursos Marinhos, Lisboa, Portugal, (8)University of Münster, Münster, Germany, (9)Universidade dos Açores, Centro de Vulcanologia e Avaliação de Riscos Geológicos, Ponta Delgada, Portugal, (10)CIBIO, Ponta Delgada, Portugal, (11)Universidade dos Açores, Departamento de Biologia, Ponta Delgada, Portugal*

**ED31A Challenges and Approaches to Running Effective Undergraduate Research Experiences in the Geosciences I Posters**

Wednesday, December 17, 2014, 08:00 AM – 12:20 PM, Moscone South, Poster Hall

**ED31A-3429 Successes and Challenges in the SAGE (Summer of Applied Geophysical Experience) REU Program**

*Lawrence W Braile, Purdue University, West Lafayette, IN, United States, W. Scott Baldrige, Los Alamos Natl Lab, Los Alamos, NM, United States, Louise Pellerin, Green Geophysics, Berkeley, CA, United States, John F Ferguson, Univ of Texas - Dallas, Richardson, TX, United States, Paul Bedrosian, USGS Denver Federal Center, Denver, CO, United States, Shawn Biehler, University of California Riverside, Riverside, CA, United States, George R Jiracek, San Diego State Univ, San Diego, CA, United States, Catherine Mary Snelson, Los Alamos National Laboratory, Earth and Environmental Sciences, Los Alamos, NM, United States, Shari Kelley, New Mexico Bureau of Geology and Mineral Resources, Socorro, NM, United States and Darcy McPhee, USGS California Water Science Center Menlo Park, Menlo Park, CA, United States*

**NH31B International Collaborations for Monitoring of Multiple Electromagnetic Pre-earthquake Signals I Posters**

Wednesday, December 17, 2014, 08:00 AM – 12:20 PM, Moscone South, Poster Hall

**NH31B-3863 Progress in Evaluating Potential EM Earthquake Precursors: Comparison of Independent Ultra Low-Frequency Electro-Magnetic (ULFEM) Systems**

*Bin Chen<sup>1,2</sup>, Jonathan M.G. Glen<sup>2</sup>, Simon L Klemperer<sup>3</sup>, Lily Christman<sup>2,3</sup>, Tom Bleier<sup>4</sup>, John Clark Dunson<sup>4</sup> and Mike DeKlotz<sup>4</sup>, (1)IGP Institute of Geophysics, China Earthquake Administration, Beijing, China, (2)USGS California Water Science Center*

Menlo Park, Menlo Park, CA, United States, (3)Stanford Univ, Stanford, CA, United States, (4)QuakeFinder, Portola Valley, CA, United States

### **GP31A Frontiers in Electromagnetic Methods II Posters**

Wednesday, December 17, 2014, 08:00 AM – 12:20 PM, Moscone South, Poster Hall

#### **GP31A-3668 Dimensionality and geological implications of a sparse magnetotelluric dataset**

*Boe Derosier*, Scripps Institution of Oceanography, La Jolla, CA, United States, *Kristen N Dennis*, Allegheny College, Meadville, PA, United States, *Raymundo Omar Plata Martinez*, UNAM National Autonomous University of Mexico, Mexico City, Mexico, *Mansoure Montahaei*, University of Teheran, Teheran, Iran, **Paul Bedrosian**, USGS Denver Federal Center, Denver, CO, United States, and *Louise Pellerin*, Green Geophysics, Berkeley, CA, United States

#### **GP31A-3676 Magnetotelluric Investigations of Convergent Margins and of Incipient Rifting: Preliminary Results from the EarthScope MT Transportable Array and MT FlexArray Deployments in Cascadia and in the North American Mid-Continent Region**

*Adam Schultz*<sup>1</sup>, *Paul Bedrosian*<sup>2</sup>, *Kerry Key*<sup>3</sup>, *Dean Livelybrooks*<sup>4</sup>, *Gary D Egbert*<sup>1</sup>, *Esteban Bowles-martinez*<sup>1</sup> and *Philip E Wannamaker*<sup>5</sup>, (1)Oregon State University, Corvallis, OR, United States, (2)USGS Denver Federal Center, Denver, CO, United States, (3)IGPP/SIO/UCSD, La Jolla, CA, United States, (4)University of Oregon, Eugene, OR, United States, (5)Univ Utah, Salt Lake City, UT, United States

### **V31D Processes, Pathways, and Properties Along the Subduction Interface II Posters**

Wednesday, December 17, 2014, 08:00 AM - 12:20 PM, Moscone South, Poster Hall

#### **V31D-4785 Rates of burial and exhumation of lawsonite blueschist/eclogite in subduction zones from *in situ* UV laser ablation<sup>40</sup>Ar/<sup>39</sup>Ar phengite geochronology**

*Katherine Fornash*, University of Minnesota, Minneapolis, MN, United States, *Michael A Cosca*, USGS, Denver, CO, United States, *Donna L Whitney*, Univ Minnesota, Minneapolis, MN, United States and *Christian P Teyssier*, Univ of Minnesota, Minneapolis, MN, United States

### **NS31B Interpreting Geophysical Signals: What We Really See Versus What We Want to See Posters**

Wednesday, December 17, 2014, 08:00 AM - 12:20 PM, Moscone South, Poster Hall

#### **NS31B-3924 A sequential hydrogeophysical approach to quantify model structural uncertainty (Invited)**

*Burke J Minsley*<sup>1</sup>, *Steen Christensen*<sup>2</sup> and *Nikolaj Kruse Christensen*<sup>2</sup>, (1)USGS, Denver, CO, United States, (2)Aarhus University, Aarhus, Denmark

### **V32B Arcs from the Inside Out II (Presentations)**

Wednesday, December 17, 2014, 10:20 AM - 12:20 PM, Moscone South, 310

#### **V32B-06 Magmatic responses to Late Cretaceous through Oligocene tectonic evolution of the western Alaska Range (11:35AM-11:50AM)**

*Erin Todd*<sup>1</sup>, *James V Jones III*<sup>1</sup>, *Susan Karl*<sup>1</sup>, *Robert A Ayuso*<sup>2</sup>, *Dwight C Bradley*<sup>1</sup>, *Stephen E Box*<sup>3</sup> and *Peter J Haeussler*<sup>1</sup>, (1)USGS Alaska Science Center, Anchorage, AK, United States, (2)USGS, Reston, VA, United States, (3)US Geological Survey, Spokane, WA, United States

### **GP33A Imaging Near-Surface to Deep Lithospheric Structure Using Gravity, Magnetic, and Electromagnetic Methods II Posters**

Wednesday, December 17, 2014, 01:40 PM - 06:00 PM, Moscone South, Poster Hall

#### **GP33A-3688 Regional gravity and magnetic anomalies related to a Proterozoic carbonatite terrane in the eastern Mojave Desert, California**

*Kevin M Denton*, *David A Ponce*, *David M Miller* and *Clayton T Jernigan*, U.S. Geological Survey, Menlo Park, CA, United States

**GP33A-3701 Mapping the Extent of the Lovejoy Basalt Beneath the Sacramento Valley, CA, Using Aeromagnetic Data**  
*Victoria E Langenheim, USGS, Menlo Park, CA, United States, Donald Steven Sweetkind, USGS, Denver, CO, United States and Steven Springhorn, California Department of Water Resources, West Sacramento, CA, United States*

**GP33A-3703 Three-Dimensional Resistivity Model of the Mono Craters Region in the Eastern California from Magnetotellurics**

*Jared Peacock, Margaret Mangan, Darcy McPhee and David A Ponce, USGS California Water Science Center Menlo Park, Menlo Park, CA, United States*

**NH33B Exploring the Roles of Science, Communication, and Education throughout the Disaster Lifecycle II Posters**

Wednesday, December 17, 2014, 01:40 PM - 06:00 PM, Moscone South, Poster Hall

**NH33B-3911 The Role of Altered Landscapes in the Disaster Lifecycle**

*JoAnn M Holloway, USGS, Denver, CO, United States, Sheila F Murphy, USGS, Boulder, CO, United States and Geoffrey S Plumlee, U.S. Geological Survey, Denver, CO, United States*

**NH33B-3913 The SAFRR Tsunami Scenario: from Publication to Implementation**

*Stephanie Ross<sup>1</sup>, Lucile Jones<sup>2</sup>, Kevin Miller<sup>3</sup>, Rick I Wilson<sup>4</sup>, Erin R Burkett<sup>5</sup>, John Bwarie<sup>5</sup>, Nnena M. Campbell<sup>6</sup>, Laurie A. Johnson<sup>7</sup>, Kate Long<sup>8</sup>, Patrick J Lynett<sup>9</sup>, Suzanne C Perry<sup>10</sup>, Geoffrey S Plumlee<sup>11</sup>, Keith Porter<sup>6</sup>, Charles R Real<sup>4</sup>, Liesel A. Ritchie<sup>6</sup>, Anne M Wein<sup>12</sup>, Paul Whitmore<sup>13</sup> and Nathan J Wood<sup>14</sup>, (1)USGS, Menlo Park, CA, United States, (2)USGS Pasadena Field Office, Pasadena, CA, United States, (3)California Office of Emergency Services, Governor's Office, San Francisco, CA, United States, (4)California Geological Survey, Sacramento, CA, United States, (5)Stratiscopes, Los Angeles, CA, United States, (6)University of Colorado at Boulder, Boulder, CO, United States, (7)Laurie Johnson Consulting | Research, San Francisco, CA, United States, (8)Cal EMA, Pasadena, CA, United States, (9)University of Southern California, Los Angeles, CA, United States, (10)USGS, Pasadena, CA, United States, (11)U.S. Geological Survey, Denver, CO, United States, (12)U. S. Geological Survey, Western Geographic Science Center, Menlo Park, CA, United States, (13)NOAA Anchorage, Anchorage, AK, United States, (14)U.S. Geological Survey, Portland, OR, United States*

**NH33B-3914 Interdisciplinary Environmental-health Science Throughout Disaster Lifecycles**

*Geoffrey S Plumlee, Suzette A Morman and Todd Michael Hoefen, U.S. Geological Survey, Denver, CO, United States*

**H33B Understanding Coupled Fluid Flow, Chemical Reactions, Mechanical Deformation, and Transport throughout Earth's Crust III Posters**

Wednesday, December 17, 2014, 01:40 PM - 06:00 PM, Moscone West, Poster Hall

**H33B-0790 Heat and Groundwater Flow through Continental Flood Basalt Provinces: Insights Gained from Alternative Models of Permeability/Depth Relationships for the Columbia Plateau, USA**

*Erick R Burns<sup>1</sup>, Colin Francis Williams<sup>2</sup>, Steve Ingebritsen<sup>3</sup>, Clifford I Voss<sup>3</sup>, Frank Spane<sup>4</sup> and Jake DeAngelo<sup>2</sup>, (1)USGS, Portland, OR, United States, (2)US Geological Survey, Geology, Minerals, Energy, and Geophysics, Menlo Park, CA, United States, (3)USGS California Water Science Center Menlo Park, Menlo Park, CA, United States, (4)Pacific Northwest National Laboratory, Richland, WA, United States*

**OS33B Marine Geohazards IV Posters**

Wednesday, December 17, 2014, 01:40 PM - 06:00 PM, Moscone West, Poster Hall

**OS33B-1054 High-Magnitude (>Mw8.0) Megathrust Earthquakes and the Subduction of Thick Sediment, Tectonic Debris, and Smooth Sea Floor**

*David W Scholl<sup>1,2</sup>, Stephen H Kirby<sup>3</sup>, Roland von Huene<sup>3</sup>, Holly F Ryan<sup>4</sup> and Ray E Wells<sup>5</sup>, (1)University of Alaska Fairbanks, Fairbanks, AK, United States, (2)U S Geological Survey, Menlo Park, CA, United States, (3)U. S. Geological Survey, Menlo Park, CA, United States, (4)USGS, Menlo Park, CA, United States, (5)USGS California Water Science Center Menlo Park, Menlo Park, CA, United States*

**V33C The Geochemical Diversity of the Mantle Inferred from Hotspots: Five Decades of Debate III Posters**

Wednesday, December 17, 2014, 01:40 PM - 06:00 PM, Moscone South, Poster Hall

**V33C-4886 High  $\delta^{56}\text{Fe}$  values in Samoan basalts**

*Jasper G Konter<sup>1</sup>, Aaron J Pietruszka<sup>2</sup>, Barry B Hanan<sup>3</sup> and Valerie Finlayson<sup>1</sup>, (1)University of Hawaii at Manoa, Honolulu, HI, United States, (2)United States Geological Survey, Denver, CO, United States, (3)San Diego State University, Geological Sciences, San Diego, CA, United States*

**V33C-4893 From Purgatory to Paradise: The Volatile Life of Hawaiian Magma**

*Jared P Marske<sup>1</sup>, Erik H Hauri<sup>1</sup>, Frank Trusdell<sup>2</sup>, Michael O Garcia<sup>3</sup> and Aaron J Pietruszka<sup>4</sup>, (1)Carnegie Inst Washington, Washington, DC, United States, (2)Hawaiian Volcano Observatory, Hawaii National Park, HI, United States, (3)Univ Hawaii, Honolulu, HI, United States, (4)United States Geological Survey, Denver, CO, United States*

**T33B Linking Plate Tectonics and Mantle Convection to Wilson Cycles: Constraints from the Geological Record and Surface Processes I Posters**

Wednesday, December 17, 2014, 01:40 PM - 06:00 PM, Moscone South, Poster Hall

**T33B-4690 Determining rates of Quaternary uplift across the Santa Rosa Island Fault, Channel Islands National Park, Southern California**

*Andrew Cyr<sup>1</sup>, Kevin M Schmidt<sup>1</sup>, Scott Alan Minor<sup>2</sup> and David Bedford<sup>3</sup>, (1)USGS Western Regional Offices Menlo Park, Menlo Park, CA, United States, (2)USGS, Denver, CO, United States, (3)U.S.G.S., Menlo Park, CA, United States*

**S33F The M6.0 24 August 2014 South Napa Earthquake II Posters**

Wednesday, December 17, 2014, 01:40 PM - 06:00 PM, Moscone South, Poster Hall

**S33F-4930 Three-dimensional fault framework of the 2014 South Napa Earthquake, San Francisco Bay region, California**

*Russell Walter Graymer, USGS California Water Science Center Menlo Park, Menlo Park, CA, United States*

**S33F-4931 Structural Control on South Napa Earthquake Sequence and Its Effects**

*Victoria E Langenheim, Russell Walter Graymer and Robert C. Jachens, U.S. Geological Survey, Menlo Park, CA, United States*

**V34A Advanced Techniques for Determining Elemental Composition, Isotopic Abundance, and Radioisotopic Age Using Bulk and Microanalysis II (Presentations)**

Wednesday, December 17, 2014, 04:00 PM - 06:00 PM, Moscone South, 310

**V34A-01 Methods Development for *In Situ* Laser-Ablation Pb and Sr Isotopic Analyses Using a Double-Focusing Single-Collector ICPMS (04:00PM-04:15PM)**

*Aaron J Pietruszka, United States Geological Survey, Denver, CO, United States and Leonid A Neymark, USGS, Denver, CO, United States*

**NS34A Applications of Near Surface Geophysics in Cold Regions II**

Wednesday, December 17, 2014, 04:00 PM - 06:00 PM, Moscone South, 302

**NS34A-01 Mapping permafrost with airborne electromagnetics (Invited) (04:00PM-04:15PM)**

*Burke J Minsley<sup>1</sup>, Lyndsay B Ball<sup>1</sup>, Benjamin R. Bloss<sup>2</sup>, Andy Kass<sup>1</sup>, Neal Pastick<sup>3,4</sup>, Bruce D Smith<sup>1</sup>, Clifford I Voss<sup>5</sup>, David O Walsh<sup>6</sup>, Michelle A Walvoord<sup>1</sup> and Bruce K Wylie<sup>7</sup>, (1)USGS, Denver, CO, United States, (2)USGS, Baltimore, MD, United States, (3)Stinger Ghaffarian Technologies Sioux Falls, Sioux Falls, SD, United States, (4)University of Minnesota Twin Cities, Department of Forest Resources, Minneapolis, MN, United States, (5)USGS California Water Science Center Menlo Park, Menlo Park, CA, United States, (6)Vista Clara Inc., Mukilteo, WA, United States, (7)USGS, EROS Data Center, Baltimore, MD, United States*

**Thursday, December 18, 2014**

**NH41B Landslide Vulnerability, Risk, and Cost Assessment I Posters**

Thursday, December 18, 2014, 08:00 AM - 12:20 PM, Moscone South, Poster Hall

**[NH41B-3784](#) Automated Techniques to Extract Shallow Landslide Data from LIDAR**

*Adam McClure<sup>1</sup>, Jonathan D Stock<sup>2</sup> and Jeanne M Jones<sup>1</sup>, (1)USGS, Western Geographic Science Center, Menlo Park, CA, United States, (2)US Geological Survey, Menlo Park, CA, United States*

**[EP41A](#) Advances in Understanding Fluvial-Deltaic Processes and Their Interactions with the Tectonic Setting  
I Posters**

Thursday, December 18, 2014, 08:00 AM - 12:20 PM, Moscone South, Poster Hall

**[EP41A-3498](#) Deciphering the evolution and origin of the lower Colorado River and uplift of the Colorado Plateau: Preliminary U-Pb carbonate dating results and future directions**

*Ryan S Crow<sup>1</sup>, Karl E Karlstrom<sup>2</sup>, Laura J Crossley<sup>2</sup>, Victor J Polyak<sup>2</sup>, Yemane Asmerom<sup>2</sup> and Kyle House<sup>1</sup>, (1)U.S. Geological Survey, Flagstaff, AZ, United States, (2)University of New Mexico Main Campus, Albuquerque, NM, United States*

**[T41B](#) Structure, Evolution, and Seismic Behavior of Oceanic Strike-Slip Faults Posters**

Thursday, December 18, 2014, 08:00 AM - 12:20 PM, Moscone South, Poster Hall

**[T41B-4616](#) Roles of the Mendocino Transform, Vizcaino Block, and Onshore King Range Terrane in Evolution of the Northern San Andreas Fault System and Its Associated Slab Windows**

*Robert J McLaughlin, USGS, GMEG Science Center, Menlo Park, CA, United States, Ginger A Barth, USGS, PCM Science Center, Menlo Park, CA, United States, Daniel S Scheirer, USGS, GMEG Science Center, Baltimore, MD, United States, Susan M Hoover, USGS, Geologic Hazards Science Center, Golden, CO, United States, Anne M Trehu, Oregon State University, Corvallis, OR, United States and Jennifer Jencks, NOAA Boulder, University of Colorado, Boulder, CO, United States*

**[A41E](#) Mineral Dust Aerosols: From Small-Scale Insights to Large-Scale Understanding I Posters**

Thursday, December 18, 2014, 08:00 AM - 12:20 PM, Moscone South, Poster Hall

**[A41E-3086](#) Dust transport from glacierized rivers of southern Alaska to the Gulf of Alaska: Interannual variability in magnitude and sources**

*John Crusius, USGS at U Washington, Seattle, WA, United States, Andrew W Schroth, University of Vermont, Burlington, VT, United States, Robert W Campbell, Prince William Sound Science Center, Cordova, AK, United States, Joeseeph Resing, Pacific Marine Environmental Laboratory, Seattle, WA, United States and Santiago Gasso, GESTAR/NASA, Silver Spring, MD, United States*

**[PP41B](#) North American Hydroclimates over the Past 120 Ka BP: Terrestrial, Marine, and Model Evidence for Oceanic/Atmospheric Forcing II Posters**

Thursday, December 18, 2014, 08:00 AM - 12:20 PM, Moscone West, Poster Hall

**[PP41B-1357](#) Changes in Holocene Climate, Fire and Vegetation from the Northeastern Great Basin: A 13,500 Year Sedimentary Record from Swan Lake, ID.**

*Lysanna Anderson, David Wahl, David M Miller, Jose Juan Rosario and Liubov Presnetsova, U.S. Geological Survey, Menlo Park, CA, United States*

**[PP41B-1358](#) SEDIMENTARY RESPONSE OF AN EPHEMERAL LAKE DURING DEGLACIAL AND HOLOCENE CLIMATE EVOLUTION, SWAN LAKE, SOUTHEAST IDAHO.**

*Jose Juan Rosario<sup>1</sup>, David M Miller<sup>1</sup>, David Wahl<sup>1</sup>, Lysanna Anderson<sup>1</sup>, Aradhna Tripathi<sup>2</sup>, Liubov Presnetsova<sup>1</sup>, Charles G Oviatt<sup>3</sup>, John P McGeehin<sup>4</sup> and Jordon E Bright<sup>5</sup>, (1)U.S. Geological Survey, Menlo Park, CA, United States, (2)UCLA, Los Angeles, CA, United States, (3)Kansas State Univ, Manhattan, KS, United States, (4)U.S. Geological Survey, Reston, VA, United States, (5)University of Arizona, Geosciences, Tucson, AZ, United States*

**[NH41A](#) Advances in Analysis and Prediction of Rock Falls, Rock Slides, and Rock Avalanches I Posters**

Thursday, December 18, 2014, 08:00 AM - 12:20 PM, Moscone South, Poster Hall

**NH41A-3778 Statistical Analyses of Historical Rock Falls in Yosemite National Park**

*Lauren J Austin<sup>1</sup>, Greg M Stock<sup>1</sup> and Brian D Collins<sup>2</sup>, (1)Yosemite National Park, El Portal, CA, United States, (2)USGS California Water Science Center Menlo Park, Menlo Park, CA, United States*

**NH42A Landslides and Gravitational Slope Deformation: Case Studies and Their Mechanism II (Presentations)**

Thursday, December 18, 2014, 10:20 AM - 12:20 PM, Moscone South, 309

**NH42A-01 Geomorphological mapping and geotechnical testing of the March 22, 2014, SR530 landslide near Oso, Washington (10:20AM-10:35AM)**

*Brian D Collins<sup>1</sup>, Mark E Reid<sup>2</sup>, James W Vallance<sup>3</sup>, Richard M Iverson<sup>3</sup> and Kevin M Schmidt<sup>4</sup>, (1)USGS California Water Science Center Menlo Park, Menlo Park, CA, United States, (2)U.S. Geological Survey, Menlo Park, CA, United States, (3)USGS, Vancouver, WA, United States, (4)USGS Western Regional Offices Menlo Park, Menlo Park, CA, United States*

**GP42A Paleogeography of Supercontinents, Terrane Tectonics, and Geodynamo History I (Presentations)**

Thursday, December 18, 2014, 10:20 AM - 12:20 PM, Moscone South, 300

**GP42A-07 Origin of Siletzia, an Accreted Large Igneous Province in the Cascadia Forearc, and the Early History of the Yellowstone Hotspot (11:50AM-12:05PM)**

*Ray E Wells<sup>1</sup>, David Bukry<sup>1</sup>, Richard M Friedman<sup>2</sup>, Douglas G Pyle<sup>3</sup>, Robert A Duncan<sup>4</sup>, Peter J Haeussler<sup>5</sup> and Joseph Wooden<sup>6</sup>, (1)U.S. Geological Survey, Menlo Park, CA, United States, (2)University of British Columbia, Vancouver, BC, Canada, (3)University of Hawaii at Manoa, Honolulu, HI, United States, (4)Oregon State University, Corvallis, OR, United States, (5)USGS Alaska Science Center, Anchorage, AK, United States, (6)Stanford University, Los Altos Hills, CA, United States*

**B43F Mercury Pollution and Environmental Change I Posters**

Thursday, December 18, 2014, 01:40 AM – 06:00 PM, Moscone West, Poster Hall

**B43F-0303 Naturally Elevated Methylmercury and Mercury Concentrations of Redwood Trees of Coastal California**

*James J Rytuba, USGS, Menlo Park, CA, United States*

**NS43A Advances in Exploration Geophysics IV Posters**

Thursday, December 18, 2014, 01:40 AM – 06:00 PM, Moscone South, Poster Hall

**NS43A-3872 Geological Hypothesis Testing and Investigations of Coupling with Transient Electromagnetics (TEM)**

*Andrea C Adams, Ohio State University Main Campus, Columbus, OH, United States, Megan M Moeller, Boise State University, Boise, ID, United States, Emily Snyder, Kutztown University of Pennsylvania, Kutztown, PA, United States, Eli Joseph Workman, University of Utah, Salt Lake City, UT, United States, Scott Urquhart, Zonge Engineering, Tucson, AZ, United States, Paul Bedrosian, USGS Denver Federal Center, Denver, CO, United States and Louise Pellerin, Green Geophysics, Berkeley, CA, United States*

**NS43A-3873 Inversion of Airborne Electromagnetic Survey Data, Styx River Area, Alaska**

*Andy Kass<sup>1</sup>, Burke J Minsley<sup>2</sup>, Bruce D Smith<sup>3</sup>, Laurel Burns<sup>4</sup> and Abraham Emond<sup>4</sup>, (1)United States Geological Survey, Arvada, CO, United States, (2)USGS, Denver, CO, United States, (3)U.S. Geological Survey, Lakewood, CO, United States, (4)Alaska Division of Geological and Geophysical Surveys, Fairbanks, AK, United States*

**NS43A-3878 Old data, New tricks: New insights into the Stillwater Complex**

*Benjamin R. Bloss, Carol Finn, Micheal L Zientek and Burke J Minsley, USGS, Denver, CO, United States*

**PP43E Carbon and Hydrogen Isotopes: Extracting the Signal from the Noise to Improve Paleoclimate Applications II (Presentations)**

Thursday, December 18, 2014, 01:40 PM – 06:00 PM, Moscone West, 2010

**PP43E-04 Testing the limits of high-resolution whole-rock  $\delta^{13}\text{C}_{\text{carb}}$  stratigraphy (02:25PM-02:40PM)**

*Patrick McLaughlin, University of Wisconsin Madison, Madison, WI, United States, Poul Emsbo, USGS Central Region Office, Lakewood, CO, United States, Carlton Brett, University of Cincinnati Main Campus, Cincinnati, OH, United States, Michael Hurth, Colorado School of Mines, Golden, CO, United States, Bryan K Sell, University of Michigan Ann Arbor, Earth and Environmental Sciences, Ann Arbor, MI, United States and Craig A Johnson, USGS, Denver, CO, United States*

**S44D The M6.0 24 August 2014 South Napa Earthquake II**

Thursday, December 18, 2014, 4:00 PM – 06:00 PM, Moscone West, 310

**S44D-04 Sources of Increased Spring and Streamflow Caused by the 2014 South Napa Earthquake**

*James J Rytuba, USGS, Menlo Park, CA, United States and Thomas L Holzer, U.S. Geological Survey, Menlo Park, CA, United States*

**Friday, December 19, 2014**

**V51A Estimating the Durations, Rates and Depths of Magmatic Processes I Posters**

Friday, December 19, 2014, 08:00 AM - 12:20 PM, Moscone South, Poster Hall

**V51A-4728 High Precision  $^{40}\text{Ar}/^{39}\text{Ar}$  Geochronology of Servilleta Basalts of the Rio Grande Gorge, New Mexico**

*Michael A Cosca, USGS, Denver, CO, United States, Ren A Thompson, USGS, Lakewood, CO, United States and Kenzie J Turner, US Geological Survey, Denver, CO, United States*

**H51E Advances in Dryland Ecohydrology I Posters**

Friday, December 19, 2014, 08:00 AM - 12:20 PM, Moscone West, Poster Hall

**H51E-0656 Dryland Precipitation Variability and Desertification Processes: An Assessment of Spatial and Temporal Rain Variability within the Grand Canyon, Arizona**

*Joshua Caster<sup>1</sup>, Joel B Sankey<sup>1</sup>, Amy Draut<sup>2</sup>, Helen Fairley<sup>1</sup>, Brian D Collins<sup>3</sup> and David Bedford<sup>4</sup>, (1)USGS Grand Canyon Monitoring and Research Center, Flagstaff, AZ, United States, (2)USGS Pacific Coast and Marine Science Center, DOI, Santa Cruz, CA, United States, (3)USGS California Water Science Center Menlo Park, Menlo Park, CA, United States, (4)U.S.G.S., Menlo Park, CA, United States*

**GP52A Geomagnetic Paleointensity and Paleosecular Variation II (Presentations)**

Friday, December 19, 2014, 10:20 AM - 12:20 PM, Moscone South, 300

**GP52A-03 Recurring features of mid-Miocene transitional geomagnetic field behavior: Observations from NE Nevada and SE Oregon (10:50AM-11:05AM)**

*Scott W Bogue, Occidental College, Los Angeles, CA, United States and Jonathan M.G. Glen, USGS California Water Science Center Menlo Park, Menlo Park, CA, United States*

**NH53C The Oso Disaster and Other New Perspectives on High-Mobility Landslides and Debris Flows II (Presentations)**

Friday, December 19, 2014, 01:40 PM - 03:40 PM, Moscone West, 3004

**NH53C-01 Landslide Mobility and Hazards: A Geophysical Overview of the Oso Disaster (01:40PM-02:00PM)**

*Richard M Iverson<sup>1</sup>, David L George<sup>1</sup>, Kate Allstadt<sup>2</sup>, Jonathan Godt<sup>3</sup>, Mark E Reid<sup>4</sup>, James W Vallance<sup>1</sup>, Steve P Schilling<sup>1</sup>, Charles Cannon<sup>5</sup>, Christopher S Magirl<sup>6</sup>, Brian D Collins<sup>4</sup>, Rex L Baum<sup>3</sup>, Jeffrey A. Coe<sup>7</sup>, William H Schulz<sup>8</sup> and J. Brent Bower<sup>9</sup>, (1)USGS, Vancouver, WA, United States, (2)University of Washington Seattle Campus, Seattle, WA, United States, (3)U.S. Geological Survey, Denver, CO, United States, (4)U.S. Geological Survey, Menlo Park, CA, United States, (5)U.S. Geological Survey, Portland, OR, United States, (6)U.S. Geological Survey, Tacoma, WA, United States, (7)US Geological Survey, Denver, CO, United States, (8)USGS, Denver, CO, United States, (9)NOAA Seattle, Seattle, WA, United States*