Sigma Gamma Epsilon Student Research Poster Session, Geological Society of America Meeting 2013, Denver, Colorado

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ABSTRACT

The 2013 Sigma Gamma Epsilon Undergraduate Research (Poster Session) took place during the 2013 GSA Conference in Denver, CO. on Tuesday, 29 October 2013: 9:00 a.m. - 6:30 p.m. (Authors were present from 2 to 4 p.m. and 5:00 to 6:30 p.m.). Ninety-eight posters were presented. Sigma Gamma Epsilon awarded the Austin A. Sartin Best Poster Award to Brittney Klemm, a member of Eta Upsilon Chapter at the University of the Pacific in Stockton, CA. Sebastian Dirringer, a member of Theta Beta Chapter at the State University of New York in New Paltz, NY, was awarded the National Council Best Poster Award.

KEY WORDS: SGE Austin A. Sartin award, SGE National Council award
Sigma Gamma Epsilon President Erika Elswick presents Brittany Klemm with the 2013 Austin A. Sartin Best Poster Award. Brittney is a member of Eta Upsilon Chapter at the University of the Pacific in Stockton, CA. Her winning research poster was titled POST-FOLDING VERTICAL FLATTENING STRAIN FABRICS IN MECHANICALLY RIGID ROCKS DEFORMED UNDER SUB-METAMORPHIC CONDITIONS IN A FORELAND FOLD-THRUST BELT. Her co-authors were Kurtis Burmeister, Scott Giorgis and Frederick Vollmer.
Sigma Gamma Epsilon President Erika Elswick presents Sebastian Dirringer with the 2013 National Council Best Poster Award. Sebastian is a member of Theta Beta Chapter at the State University of New York in New Paltz, NY. His winning research poster was titled **A TEST OF THE ANALYTICAL WELLMAN AND MEAN POLYGON MOMENT ELLIPSE METHODS OF STRAIN ANALYSIS USING A SAMPLE OF DEFORMED ORDOVICIAN GRAPTOLIFEROUS SLATE FROM THE TACONIC OROGEN, NEW YORK**. Frederick Vollmer was a co-author on with Dirringer.
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DETrital zircon U/Pb provenance of the lower cretaceous cloverly formation, Big horn and Powder River basins, Wyoming. MALONE, David H.\(^1\), CRADDOCK, John P.\(^2\), and HOWELL, Brett A.\(^1\), (1) Department of Geography-Geology, Illinois State University, Campus Box 4400, Normal, IL 61761, bahovel@ilstu.edu, (2) Geology Department, Macalester College, 1600 Grand Avenue, St. Paul, MN 55105

AGE AND PROVENANCE OF EOcene volcanic rocks at hominy peak, northern Teton range, WY. MUSTAIN, Monica, Illinois State University, Normal, IL 61761, mrmusta@ilstu.edu, MALONE, David, Geography-Geology, Illinois State Univ, Campus Box 4400, Normal, IL 61761-4400, and CRADDOCK, John P., Geology Department, Macalester College, 1600 Grand Avenue, St. Paul, MN 55105

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AGE AND PROVENANCE OF QUARTZITE CLASTS IN TERTIARY CONGLOMERATES, WESTERN BIG HORN BASIN, WY using DETритAL zircon u/pb GEOCHRONOLOGY. MALONE, David H.\(^1\), CRADDOCK, John P.\(^2\), and SCROGGINS, Mary Ann\(^1\), (1) Department of Geography-Geology, Illinois State University, Campus Box 4400, Normal, IL 61761, mascrog@ilstu.edu, (2) Geology Department, Macalester College, 1600 Grand Avenue, St. Paul, MN 55105

CAN CarBoN isotopes CONSTRAIN high-resoLution stratigraphy of Ordovician Shallow water facies in the Cincinnati, Ohio region? FREEMAN, Rebecca L., Earth & Environmental Sciences Department, University of Kentucky, Lexington, KY 40506, FISCHER, Sarah, Department of Geosciences, Indiana University-Purdue University Fort Wayne, 2102 Coliseum Boulevard, Fort Wayne, IN 46805-1499, sariefac@gmail.com, DATTILo, Benjamin F., Department of Geosciences, Indiana University Purdue University, Fort Wayne, IN 46805, SCHRAMM, Thomas J., Department of Geology and Geophysics, Louisiana State University, E235 Howe-Russell Geoscience Complex, Baton Rouge, LA 70803, BRETT, Carlton E., Department of Geology, University of Cincinnati, Cincinnati, OH 45221-0013, MOsser, Sasha L., Geology, Indiana University Purdue University Fort Wayne, 2101 E. Coliseum Blvd, Fort Wayne, IN 46805, BLAIR, Michael, Dept. of Geosciences, Indiana University Purdue University Fort Wayne, 2102 Coliseum Blvd, Fort
SO YOU MEASURED CHEMICAL PARAMETERS IN A WELL FIELD AND SO WHAT?

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**AFFIRMATION OF ANTARCTIC-LAURENTIAN RODINIAN JUXTAPOSITION DURING THE MESOPROTEROZOIC** HODGSON, Justin¹, LICHT, Kathy¹, and SWOPE, R. Jeffrey²,
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**PLANKTIC FORAMINIFERA BIOSTRATIGRAPHY OF CORE MD02-2560, KANE SPUR, GULF OF MEXICO** SCHMITT, Erin, Geology and Environmental Science, James Madison University, Harrisonburg, VA 22807, schmitee@dukes.jmu.edu and ST. JOHN, Kristen E., Geology and Environmental Science, James Madison University, MSC 6903, Harrisonburg, VA 28608

**MINERALOGY AND GEOCHEMISTRY OF AN ANTHROPOCENE (~350 YR) SEDIMENT CORE FROM LAKE BARINGO, KENYA** SPETKA, Stephanie¹, PICKERING, Rebecca A.², TAYLOR, Lucy C.², KIAGE, Lawrence³, LIU, Kam-biu⁴, and DEOCAMPO, Daniel⁵, (1) Morton K. Blaustein Department of Earth and Planetary Sciences, Johns Hopkins University, 3400 North Charles Street, Baltimore, MD 21218, sspetka1@jhu.edu, (2) Geosciences, Georgia State University, 24 Peachtree Center Avenue Northeast, Atlanta, GA 30303, (3) Geosciences, Georgia State University, P.O. Box 4105, Atlanta, GA 30302, (4) Department of Oceanography and Coastal Sciences, Louisiana State University, Baton Rouge, LA 70803, (5) Geosciences, Georgia State University, PO Box 4105, Atlanta, GA 30302

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OPTIMIZATION OF ENGINEERED INJECTION AND EXTRACTION FOR IN SITU REMEDIATION OF SORBING GROUNDWATER CONTAMINANTS BRODT, John P., Department of Civil and Environmental Engineering, Louisiana State University, 1371 Stephens Ave, Baton Rouge, LA 70808, jbrodt2@tigers.lsu.edu and NEUPAUER, Roseanna M., Civil, Environmental, and Architectural Engineering, University of Colorado, 1111 Engineering Dr, ECOT 441, UCB 428, Boulder, CO 80309

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MARTIAN PLATE MOTIONS IN THE VICINITY OF VALLES MARINERIS AND THARSIS RISE KIDMAN, Genevieve, Physical Science, Southern Utah University, 269 South Dewey, Apt. 4, Cedar City, UT 84720, genevievekidman@yahoo.com, SKANKEY, Robert, Physical Science, Southern Utah University, 354 West 600 South, Apt. A, Cedar City, UT 84720, and MACLEAN, John S., Geology, Southern Utah University, SC 309, 351 West University Boulevard, Cedar City, UT 84720

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MICROFACIES, MINERALOGY, AND STABLE-ISOTOPE RECORD OF THE EAST BEACH LAGOON SEDIMENT, SAN SALVADOR ISLAND, BAHAMAS

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PRODUCTION OF A PHYSICAL MODEL OF THE CENTRALIA COAL FIRE

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THE FORMATION OF GLACIALLY STRIATED PAVEMENTS IN WITMARSUM, BRAZIL

SUMPTION, Grace L., Geology and Geological Engineering, South Dakota School of Mines and Technology, Rapid City, SD 57701, grace.sumption@mines.sdsmt.edu, ROCHA-CAMPOS, A.C., Instituto des Geosciências, Universidade de São Paulo, Sao Paulo, 05450-001, Brazil, and COTTER, James F.P., Geology Discipline, University of Minnesota, Morris, 600 East 4th Street, Morris, MN 56267

DEPOSITIONAL ENVIRONMENT OF CARBONIFEROUS GLACIOGENIC CLAY DEPOSITS, WITMARSUM, PARANA STATE, BRAZIL

JACKSON, Courtney C., ANDERSON FOLNAGY, Heidi 2, BACCI, D.C. 3, ROCHA-CAMPOS, A.C. 3, and COTTER, James F.P. 4, (1) Geography Department, The Pennsylvania State University, University Park, PA 16802, coj5074@psu.edu, (2) University of Montana Western, Dillon, MT 59725, (3) Instituto des Geosciências, Universidade de São Paulo, Sao Paulo, 05450-001, Brazil, (4) Geology Discipline, University of Minnesota, Morris, 600 East 4th Street, Morris, MN 56267

PURGATOIRE RIVER WATER QUALITY: A TWO-YEAR COLLEGE UNDERGRADUATE RESEARCH PROJECT FROM SOUTHERN COLORADO

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PROVENANCE STUDY OF THE GOOSE ROCK CONGLOMERATE, CENTRAL OR: CHARACTERIZING THE MARGIN OF THE CRETACEOUS OCHOCO BASIN

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THE MODERN RIO BERMEJO MEGAFAN, CHACO FORELAND BASIN (ARGENTINA)

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EXPLORING MICROBIAL PRESERVATION IN IRON OXIDES WITH COMPUTED TOMOGRAPHY AND SCANNING ELECTRON MICROSCOPY  PHAN, Athena T.1, WILLIAMS, Amy J.1, and SUMNER, D.Y.2, (1) Geology, University of California, Davis, One Shields Avenue, Davis, CA 95616, aph@ucdavis.edu, (2) Geology, University of California, Davis, CA 95616

A GEOMORPHIC ASSESSMENT OF FLOOD HAZARDS OF THE RISHI VALLEY IN THE TRANSHIMALAYA, LADAKH, NORTHERN INDIA  SCHWALBACH, Cameron E., ARKLE, Jeanette C., THOMAS, Rachel, DILLINGHAM, Jacob, and DIETSCH, Craig, Department of Geology, University of Cincinnati, ML 013, Cincinnati, OH 45221-0013, schwalce@mail.uc.edu

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ANALYSIS OF KAOLINITE IN THE DEVONIAN AGE FURNAS FORMATION WITMARSUM, PARANA STATE, BRAZIL  WOOLDRIDGE, Sayge C., Geology Discipline, University of Minnesota Morris, 600 East 4th Street, Morris, MN 56267, woold008@morris.umn.edu and COTTER, James F.P., Geology Discipline, University of Minnesota, Morris, 600 East 4th Street, Morris, MN 56267
TERRESTRIAL LASER SCANNING (TLS) AS A TOOL TO DIFFERENTIATE AND CORRELATE UNCONSOLIDATED GLACIALLY DERIVED SEDIMENTS, YELLOW MEDICINE COUNTY, MINNEOSTA CARNICLE, Melissa M., Division of Math and Science, Geology Discipline, University of Minnesota Morris, 600 East 4th Street, Morris, MN 56267, carn0083@morris.umn.edu and COTTER, James F.P., Geology Discipline, University of Minnesota, Morris, 600 East 4th Street, Morris, MN 56267

ANALYSIS OF CARBONIFEROUS GLACIAL FURROWS ON DEVONIAN BEDROCK, PARANA STATE, BRAZIL: EVIDENCE FOR PALEO-TOPOGRAPHIC INFLUENCE ON FLOW TARBELL, Chelsea, Geology Discipline, University of Minnesota, Morris, Morris, MN 56267, tarb0016@morris.umn.edu, ROCHA-CAMPOS, A.C., Instituto des Geosciências, Universidade de São Paulo, Sao Paulo, 05450-001, Brazil, and COTTER, James F.P., Geology Discipline, University of Minnesota, Morris, 600 East 4th Street, Morris, MN 56267

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TRACKING GROWTH EVOLUTION IN CONTEMPORANEOUS HYDROTHERMAL QUARTZ: HIGH RESOLUTION FTIR CHARACTERIZATION OF CRYSTALS SAMPLED AT WINDGälLENHütTE, SWITZERLAND

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CLAY MINERALOGY OF THE MH-2 CORE, SNAKE RIVER PLAIN, IDAHO  
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MANAGEMENT OF PRODUCED WATER FROM OIL AND GAS WELLS IN CALIFORNIA: PAST TRENDS AND FUTURE SUGGESTIONS  
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ANALYSIS OF SOIL ORGANIC MATTER OVER MULTIPLE GROWING SEASONS AT AN ORGANIC FARM IN SOUTHEASTERN MINNESOTA
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SPRING CHLORIDE BEHAVIOR IN BUCK CREEK AND THE GREAT MIAMI RIVER, OH
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DIEL CALCIUM AND MAGNESIUM BEHAVIOR IN A SMALL AGRICULTURAL STREAM, BEAVER CREEK, SPRINGFIELD, OHIO WILSON, Elizabeth L., Department of Geology, Wittenberg University, Springfield, OH 45501, s14.ewilson@wittenberg.edu, COUTS, Kimberly E., Department of Geology, Wittenberg, Springfield, OH 45501, and FORTNER, Sarah K., Department of Geology, Wittenberg University, Springfield, 45501