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

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Recommended Citation
DOI: https://doi.org/10.62879/c93248923
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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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WATER QUALITY OF THE THOMPSON’S CREEK WATERSHED, CLAREMONT, CA GONZALEZ, Jazmin. Geological Sciences, Cal Poly Pomona, Pomona, CA 91768, jpgonzalez@csupomona.edu and OSBORN, Stephen G., Geological Sciences Department, California State Polytechnic University - Pomona, Pomona, 91768

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TOC, C/N, δ13C, AND δ15N OF SHALES FROM THE MISSISSIPPIAN MICHIGAN FORMATION, WESTERN MICHIGAN LOCKMILLER, Kayla A, and VIDETICH, Patricia E., Geology Department, Grand Valley State University, 1 Campus Drive, Allendale, MI 49401, lockmilk@mail.gvsu.edu

GEOCHEMICAL STUDY OF OULEOUT CREEK, NY WINTERS, Catherine G., Department of Chemistry, Hartwick College, Oneonta, NY 13820, catherine.g.winters@gmail.com and BALOGH-BRUNSTAD, Zsuzsanna, Department of Geology and Environmental Sciences, Hartwick College, Oneonta, NY 13820

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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, bahowel@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

AGE AND PROVENANCE OF PROXIMAL TERTIARY QUARTZITE COBBLE CONglomerATES NEAR JACKSON HOLE, WY USING DETRITAL ZIRCON U/PB GEOCHRONOLOGY. RAPPE, Jason D., Geography-Geology, Illinois State University, Campus Box 4400, Normal, 61790, jdrappe@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

AGE AND PROVENANCE OF QUARTZITE CLASTS IN TERTIARY CONglomerATES, WESTERN BIG HORN BASIN, WY USING DETRITAL ZIRCON U/PB GEOCHRONOLOGY. MALONE, David H.1, CRADDOCK, John P.2, and SCROGGINS, Mary Ann1, (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, sarieface@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 Wayne, IN 46805.
SO YOU MEASURED CHEMICAL PARAMETERS IN A WELL FIELD AND SO WHAT? 

**BUDD, Sarah K.**, Geosciences, Indiana Purdue University Fort Wayne (IPFW), 2101 E. Coliseum Blvd, Fort Wayne, IN 46805-1499, buddsk01@students.ipfw.edu, LAFAUCIA, Tammy, Department of Geosciences, Indiana Purdue University Fort Wayne (IPFW), 2101 E. Coliseum Blvd, Fort Wayne, IN 46805-1499, and ISIORHO, S.A., Geosciences Dept, Purdue University - Purdue University Fort Wayne (IPFW), 2101 E. Coliseum Blvd, Fort Wayne, IN 46805-1499

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**HODGSON, Justin**1, LICHT, Kathy1, and SWOPE, R. Jeffrey2, (1) Department of Earth Sciences, Indiana University-Purdue University Indianapolis, 723 West Michigan Street, SL 118, Indianapolis, IN 46202, jwhodgso@iupui.edu, (2) Department of Geology, Indiana University - Purdue University Indianapolis, 723 West Michigan Street, SL118, Indianapolis, IN 46202-5132

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

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**SPETKA, Stephanie**1, PICKERING, Rebecca A.2, TAYLOR, Lucy C.2, KIAJE, 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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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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RYAN, Peter C., PINCUS, Lauren, and FALCONES, Kristoffer, Geology Department, Middlebury College, 276 Bicentennial Way, Middlebury, VT 05753, lpincus@middlebury.edu

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GOLDBERG, Michelle, Canton, NY 13617, megold11@stlawu.edu and HUSINEC, Antun, Geology Department, St. Lawrence University, 23 Romoda Drive, Canton, NY 13617

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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

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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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MICROANALYTICAL EVIDENCE FOR MAGMA MINGLING AT MOUNT ST. HELENS

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

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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

CHAOTIC ADVECTION AND CONTAMINANT DEGRADATION DURING ENGINEERED INJECTION AND EXTRACTION IN HETEROGENEOUS POROUS MEDIA   ACCARDO, Mathew, Department of Civil, Environmental, and Architectural Engineering, University of Colorado Boulder, 1111 Engineering Dr, ECOT 441, UCB 428, Boulder, CO 80309, mathew.accardo@colorado.edu, NEUPAUER, Roseanna M., Civil, Environmental, and Architectural Engineering, University of Colorado, 1111 Engineering Dr, ECOT 441, UCB 428, Boulder, CO 80309, MEISS, James D., Department of Applied Mathematics, University of Colorado Boulder, 1111 Engineering Dr, UCB 526, Boulder, CO 80309, and MAYS, David C., Department of Civil Engineering, University of Colorado Denver, Campus Box 113, PO Box 173364, Denver, CO 80217-3364

PETROGRAPHY AND GEOCHEMISTRY OF THE BAIYANGHE VOLCANIC-HOSTED BE-U DEPOSIT, XINJIANG AUTONOMOUS REGION, NW CHINA   SHABAGA, Brandi¹, FAYEK, Mostafa², WANG, Guo³, and WEN, Zhanjiu³, (1) Geological Sciences, University of Manitoba, 240 Wallace Bldg, Winnipeg, MB R3T2N2, Canada, brandishabaga@gmail.com, (2) Geological Sciences, University of Manitoba, 240 Wallace Bldg, 125 Dysart Rd, Winnipeg, MB R3T2N2, Canada, (3) Geological Party No. 216, China National Nuclear Corp. (CNNC), P.O Box 84, BeiJinNan Road, Urumqi, 830011, China

SEDIMENTOLOGY AND STRATIGRAPHY OF THE EOCENE COCKFIELD FORMATION AT MEEMAN-SHELBY FOREST STATE PARK, WESTERN TENNESSEE   FERREIRA, Lauren A., Department of Earth sciences, University of Memphis, 201 Johnson Hall, Memphis, TN 38152, lfrreira@memphis.edu, LARSEN, Daniel, Department of Earth Sciences, University of Memphis, Johnson Hall, Rm 1, Memphis, TN 38152, and GALLO, Haley G., Department of Earth Sciences, University of Memphis, Johnson Hall, Rm 206, Memphis, TN 38152

ANALYSIS OF KAOLINITE IN THE DEVONIAN AGE FURNAS FORMATION WITMARSUM, PARANA STATE, BRAZIL: A PALEOZOIC ANALOG FOR THE PIPESTONE UNIT   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

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ANALYSIS OF CARBONIFEROUS GLACIAL FURROWS ON DEVONIAN BEDROCK, PARANA STATE, BRAZIL; EVIDENCE FOR PALEO-TOPOGRAPHIC INFLUENCE ON FLOW

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ANALYSIS OF ITARARè SUBGROUP CLAYS EXPOSED IN WITMARSUM, PARANA STATE, BRAZIL

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SYNSEDIMENTARY LOW ANGLE NORMAL DETACHMENT IN WHITE RIVER GROUP STRATA OF NW SOUTH DAKOTA

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SPATIAL ANALYSIS OF SEISMIC ACTIVITY IN THE CENTRAL GREAT PLAINS

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PETROGRAPHY OF THE NEROLY FORMATION (MIOCENE), DIABLO RANGE, SAN JOAQUIN COUNTY, CALIFORNIA

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RELATIONSHIP BETWEEN MICROBIAL COMMUNITIES AND METAL MOBILITY IN URBAN WATERSHEDS, EASTERN SAN FRANCISCO BAY AREA, CA

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POST-FOLDING VERTICAL FLATTENING STRAIN FABRICS IN MECHANICALLY RIGID ROCKS DEFORMED UNDER SUB-METAMORPHIC CONDITIONS IN A FORELAND FOLD-THRUST BELT KLEMM, Brittany M., BURMEISTER, Kurtis C., GIORGIS, Scott D., and VOLLMER, Frederick W., (1) Department of Earth and Environmental Sciences, University of the Pacific, 3601 Pacific Avenue, Stockton, CA 95211, b_klemm@u.pacific.edu, (2) Department of Geological Sciences, State University of New York at Geneseo, 1 College Circle, Geneseo, NY 14454, (3) Geology, SUNY New Paltz, New Paltz, NY 12561

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ANALYSIS OF METAL POLLUTANTS IN SAN MARTIN LAKE CONTRERAS, Mara, LAW, Joshuah D., DELGADO, Bianca, and HEISE, Elizabeth A., (1) Department of Environmental Engineering, Texas A&M University - Kingsville, Kingsville, TX 78363, (2) Chemistry and Environmental Sciences, University of Texas at Brownsville, One West University Boulevard, Brownsville, TX 78520, joshuahdavid@live.com

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MINERALOGIC AND TEXTURAL COMPARISON OF TWO SAMPLES OF AMPHIBOLITE FROM CARROLL COUNTY, WESTERN GEORGIA MASSEY, Rachel and BERG, Christopher A., Department of Geosciences, University of West Georgia, 1601 Maple Street, Carrollton, GA 30118, rmassey4@my.westga.edu

AN ASSESSMENT OF SHORELINE CHANGE FOR SMALL ASSOCIATED ISLANDS OF PUERTO RICO AND THE UNITED STATES VIRGIN ISLANDS RUNYAN, Ryann M., JACKSON, Chester W. Jr., BUSH, David M., PERISON-PARRISH, Elizabeth M., SIEMER, Kyle W., LLERANDI-ROMÁN, Pablo A., and NEAL, William J., (1) Department of Geosciences, University of West Georgia, Carrollton, GA 30118, rrunyan1@my.westga.edu, (2)
A COASTAL VULNERABILITY INDEX FOR SMALL ISLANDS OF PUERTO RICO AND THE UNITED STATES VIRGIN ISLANDS  
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TRACKING GROWTH EVOLUTION IN CONTEMPORANEOUS HYDROTHERMAL QUARTZ: HIGH RESOLUTION FTIR CHARACTERIZATION OF CRYSTALS SAMPLED AT WINDGäLLENHüTTE, SWITZERLAND  
WIPPERFURTH, Scott A., LINDBLAD, Todd A., JOHNSON, Aleisha C., and IHINGER, Phillip D., Department of Geology, University of Wisconsin-Eau Claire, 105 Garfield Ave, Eau Claire, WI 54701, wippersa@uwec.edu

THE CHARLES DARWIN RESEARCH STATION, GALÁPAGOS: RECOMMENDATIONS FOR IMPROVING FINANCIAL STABILITY THROUGH PUBLIC OUTREACH  
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MINOR AND TRACE ELEMENT ANALYSIS USING ANALYTICAL TRANSMISSION ELECTRON MICROSCOPE (TEM)  
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THE ROLE OF PROXIMITY IN HOW INDIVIDUALS DESCRIBE NATURAL DISASTERS: ANALYSIS OF THE 2004 INDIAN OCEAN TSUNAMI  
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CHEMICAL FINGERPRINT OF HYDROTHERMAL QUARTZ CRYSTALS SAMPLED ALONG A TRAVERSE ACROSS THE SWISS ALPS JOHNSON, Aleisha C., LINDBLAD, Todd A., WIPPERFURTH, Scott A., and IHINGER, Phillip D., Department of Geology, University of Wisconsin-Eau Claire, 105 Garfield Ave, Eau Claire, WI 54701, johnalei@uwec.edu

ASSESSING SEDIMENT AND ORGANIC CARBON ACCUMULATION IN SEMINOE RESERVOIR, WYOMING LOGAN, Leslie1, MARTIN, Evan1, and MCELROY, Brandon2, (1) Geology & Geophysics, University of Wyoming, Dept 3006, 1000 E University Ave, Laramie, WY 82071, llogan@uwyo.edu, (2) Department of Geology and Geophysics, University of Wyoming, Laramie, WY 82071

INVESTIGATION OF CHONDRULES AND METAL IN ALLENDE (CV3) AND JELICA (LL6) USING X-RAY COMPUTED TOMOGRAPHY ARMENDAREZ, Hannah R., Earth and Environmental Sciences, Vanderbilt University, 5726 Stevenson Center, 7th Floor, Nashville, TN 37240, hannah.r.armendarez@vanderbilt.edu and BAGLEY, Brian, Earth Sciences, University of Minnesota, Minneapolis, MN 55455

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ARE WINTERTIME DE-ICING SALTS HARMING OUR ENVIRONMENT?: THE RESPONSE OF SOIL, QUERCUS RUBRA, AND PINUS STROBUS TO NACL ROCK SALT TREATMENT FLINN, Natalie N. and RODRIGUES, Lisa J., Geography & the Environment, Villanova University, 800 Lancaster Avenue, Villanova, PA 19085, lisa.rodrigues@villanova.edu

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ANALYSIS OF CARBONIFEROUS DIAMICTS OF THE ITARARÈ SUBGROUP IN WITMARSUM, PARANA STATE, BRAZIL PENDERGRASS, Emily1, ANDERSON FOLNAGY, Heidi2, BACCI, D.C.3, ROCHA-CAMPOS, A.C.3, and COTTER, James F.P.4, (1) Geosciences and Natural Resources Department, Western Carolina University, Cullowhee, NC 28723, empendergrass2@gmail.com, (2) University of Montana Western, Dillon, MT 59725, (3) Instituto des Geociências, Universidade de São Paulo, Sao Paulo, 05450-001, Brazil, (4) Geology Discipline, University of Minnesota, Morris, 600 East 4th Street, Morris, MN 56267
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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ASSESSING HYDROLOGIC AND BIOGEOCHEMICAL FUNCTIONS OF AN ACCIDENTAL URBAN WETLAND

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DIEL CALCIUM AND MAGNESIUM BEHAVIOR IN A SMALL AGRICULTURAL STREAM, BEAVER CREEK, SPRINGFIELD, OHIO

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