New Mexico Geological Society spring meeting program

The following is the program for the New Mexico Geological Society annual spring meeting, which was held on April 7, 2017 at the Macy Center, New Mexico Tech campus, Socorro. For a PDF file of the program and the abstracts: nmgs.nmt.edu/meeting/

KEYNOTE

URANIUM INDUSTRY: OVERVIEW, Bonifas, B., bbonifas@energyfuels.com, Energy Fuels Nichols Ranch ISR Uranium Mines, Linch, WY

ENERGY IN NEW MEXICO SESSION

THE UPPER MANCOS SHALE IN THE SAN JUAN BASIN: THREE OIL AND GAS PLAYS, CONVENTIONAL AND UNCONVENTIONAL, Broadhead, R.F., ron.broadhead@nmt.edu, New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

GEOTHERMAL POTENTIAL OF THE SOUTHERN SAN LUIS BASIN, TAOS COUNTY, NEW MEXICO, Kelley, S., shari.kelley@nmt.edu, New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801; and Pepin J.D., Hydrology Department, New Mexico Tech, Socorro, NM,87801

URANIUM RESOURCES IN NEW MEXICO IN 2017, McLemore, V.T., virginia.mclemore@nmt.edu, New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

THE EVOLUTION OF URANIUM MINERALIZATION IN NEW MEXICO, Lueth, V.W., virgil.lueth@nmt.edu, and McNamara, K., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, New Mexico, 87801

WATERSHEDS AND HYDROLOGYSESSION

TURNING TOYS INTO TOOLS: UNMANNED AIRCRAFTS FOR THE 21ST CENTURY GEOSCIENTIST, Zimmerer, M.J., matthew.zimmerer@nmt.edu, and Ross, J.I., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

RELATIONSHIP BETWEEN TREE CANOPY COVER AND DISCHARGE OF UPPER GALLINAS WATERSHED, NEW MEXICO, 1939 – 2015, Yekkeh, B., b.yekkeh@gmail.com, New Mexico Highlands University, Las Vegas, NM, 87701

WHAT LIES BENEATH THE DUNES? GRAVITY MEASUREMENTS TO CHARACTERIZE SUB-SURFACE DENSITY STRUCTURE AND UNDERSTAND CONTROLS ON DUNE MIGRATION IN WHITE SANDS NATIONAL MONUMENT, NEW MEXICO, Dunagin, R., rdunagin@unm.edu, and Roy, M., University of New Mexico, 2112 Gold St, Albuquerque, NM, 87106; Kelley, S., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801; Worthington, L., and Butts, J., University of New Mexico, Albuquerque, NM, 87106

THE DEMISE OF THE CUATROCIÉNEGAS GYPSUM DUNE FIELD, AND WHAT IT MEANS FOR THE WHITE SANDS NATIONAL MONUMENT, Mamer, E.A., ethan.mamer@nmt.edu, and Newton, B.T., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

PALEONTOLOGY IN NEW MEXICO SESSION

THE PALEOZOIC SECTION AT BELL HILL, SOCORRO COUNTY, NEW MEXICO, Lucas, S.G., spencer.lucas@state.nm.us, New Mexico Museum of Natural History, 1801 Mountain Road N.W., Albuquerque, NM, 87104; Allen, B.D., New Mexico Bureau of Geology and Mineral Resources, Socorro, NM, 87801; Krainer. K., Institute of Geology, University of Innsbruck, Innsbruck, A-6020, Austria; and Barrick, J.E., Texas Tech University, Lubbock, TX, 41053

PHYLOGENY OF THE ENIGMATIC EOCENE TESTUDINOID TURTLE *ECHMATEMYS* AND THE ORIGIN OF THE TESTUDINIDAE, Lichtig, A.J., ajlichtig@gmail.com, and Lucas, S.G., New Mexico Museum of Natural History, 1801 Mountain Road N.W., Albuquerque, NM, 87104

NEW EVIDENCE FOR CANNIBALISM IN TYRANNOSAURID DINOSAURS FROM THE LATE CRETACEOUS OF NEW MEXICO, Dalman, S.G., sebastiandalman@yahoo.com, and Lucas, S.G., New Mexico Museum of Natural History, 1801 Mountain Road N.W., Albuquerque, NM, 87104

X-RAY AND NEUTRON COMPUTED TOMOGRAPHY OF VERTEBRATE FOSSILS AT THE LOS ALAMOS NEUTRON SCIENCE CENTER, LOS ALAMOS NATIONAL LABORATORY, NEW MEXICO, Williamson, T.E, thomas.williamson@state.nm.us, New Mexico Museum of Natural History and Science, 1801 Mountain Road, NW, Albuquerque, NM, 87121; Brusatte, S.L, School of GeoSciences, University of Edinburgh, Grant Institute, James Hutton Road, Edinburgh, EH9 3FE, United Kingdom; Espy, M.A., Gautier, C., Hunter, J., Losko, A.S., and Nelson, R.O., Los Alamos National Laboratory, Los Alamos, NM, 87545; Schroeder, K., Department of Biology, University of New Mexico, Albuquerque, NM, 87104; and Vogel, S., Los Alamos National Laboratory, Los Alamos, NM, 87545

FUNCTIONAL CHANGE IN MOLLUSCAN DIVERSITY DYNAMICS OBSERVED ACROSS OAE2, Freymueller, N., nickfreymueller@unm.edu, and Myers, C., University of New Mexico, Albuquerque, NM, 87131

URANIUM IN NEW MEXICO SESSION

WHY I REMAIN A URANIUM BULL, Fulp, M.S., mickey@mercenarygeologist.com, MercenaryGeologist.com, LLC, Albuquerque, NM, 87105

GEOCHEMICAL PROCESSES CONTROLLING TRANSPORT AND DEPOSITION OF URANIUM, ESPAÑOLA BASIN, NEW MEXICO, Longmire, P., patrick.longmire@state.nm.us, New Mexico Environment Department, Ground Water Quality Bureau, 1190 St. Frances Drive, Santa Fe, NM, 87502; McLemore, V.T., New Mexico Bureau of Geology and Mineral Resources; New Mexico Tech, Socorro, NM, 87801; McQuillan, D., New Mexico Environment Department, Office of the Secretary, 1190 St. Frances Drive, Santa Fe, NM, 87502; Yanicak, S., New Mexico Environment Department, DOE Oversight Bureau, 1183 Diamond Drive, Suite B, Los Alamos, NM, 87544; and Vaniman, D., Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, CA, 91011

AN ABANDONED URANIUM MINE SURVEY OF MINE SITES IN NEW MEXICO, Tinklenberg, A., atinklenberg@intera.com, and Sengebush, R., INTERA, Inc, 6000 Uptown Blvd NE, Suite 220, Albuquerque, NM, 87110

THE CHARACTERIZATION OF ABANDONED URANIUM MINES IN NEW MEXICO, Asafo-Akowuah, J., aakowuah@gmail.com, New Mexico Institute of Mining and Technology, Socorro, NM, 87801; and McLemore, V.T., New Mexico Bureau of Geology and Mineral Resources; New Mexico Tech, Socorro, NM, 87801

REACTIVATION OF THE MT. TAYLOR MINE – OBSTACLES AND OPPORTUNITIES, Kuhn, A.K., akkuhn41@gmail.com, Alan Kuhn Associates LLC, 13212 Manitoba Dr. NE, Albuquerque, NM, 87111

ECONOMIC AND ENVIRONMENTAL GEOLOGY SESSION

URANIUM CONCENTRATIONS IN DUST FLUX ACROSS THE JACKPILE MINE SUPERFUND SITE, Brown, R.D., and Cadol, D., New Mexico Institute of Mining and Technology, Earth and Environmental Sciences, Socorro, NM, 87801; and Frey, B., New Mexico Bureau of Geology and Mineral Resources; New Mexico Tech, Socorro, NM, 87801

PHYLLIC ALTERATION IN THE COPPER FLAT PORPHYRY COPPER DEPOSIT, SIERRA COUNTY, NEW MEXICO, Maher, K., kierran.maher@nmt.edu, and Wallace, C., New Mexico Institute of Mining and Technology, Socorro, NM, 87801

PARAGENESIS OF URANIUM MINERALS IN THE GRANTS MINERAL BELT, NEW MEXICO: APPLIED GEOCHEMISTRY AND THE DEVELOPMENT OF OXIDIZED URANIUM MINERALIZATION, Caldwell, S., samantha.caldwell@student.nmt.edu, and Chavez, W.X., Jr., New Mexico Institute of Mining and Technology, Socorro, NM, 87801

GEOCHRONOLOGY AND GEOCHEMISTRY OF THE METASOMATIC PROCESSES RELATED TO EPISYENITES IN CENTRAL NEW MEXICO AND COLORADO, Smith, A.E., adam.smith@student.nmt.edu, New Mexico Institute of Mining and Technology, Socorro, NM, 87801; Heizler, M.T., and McLemore, V.T., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801; Maher, K.C., New Mexico Institute of Mining and Technology, Socorro, NM, 87801; and Ramos, F.C., New Mexico State University, Las Cruces, NM, 88003

40AR/39AR GEOCHRONOLOGY OF MAGMATISM AND ALTERATION IN THE GALLINAS MOUNTAINS WITH IMPLICATIONS FOR RARE EARTH MINERALIZATION, Robison, A., alanna.robison@student.nmt.edu, Dept. of Earth and Environmental Sciences, New Mexico Tech, Socorro, NM, 87801; McIntosh, W., and Lueth, V., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

FORSTERITE AND PYRRHOTITE DISSOLUTION RATES FROM KINETIC TESTING USING MINE TAILINGS: RESULTS FROM GEOCHEMICAL MODELLING, Embile, R.F., Jr., RodrigoJr.Embile@student.nmt.edu, and Walder, I., New Mexico Institute of Mining and Technology, Socorro, NM, 87801

VOLCANOLOGY AND STRATIGRAPHY IN NEW MEXICO SESSION

DETRITAL SANIDINE 40AR/39AR DATING: TRANSFORMING SEDIMENTARY ROCK GEOCHRONOLOGY, Heizler, M.T., matt.heizler@nmt.edu, New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801; Karlstrom, K., University of New Mexico, Albuquerque, NM, 87131; Zimmerer, M., and Ross, J., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801; Crossey, L., University of New Mexico, Albuquerque, NM, 87131; and McIntosh, W., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

40AR/ 39AR DETRITAL SANIDINE DATING OF THE OGALLALA FORMATION IN SOUTHEASTERN NEW MEXICO AND WEST TEXAS, Henry, K., kevin.henry@student.nmt.edu, New Mexico Tech, Socorro, New Mexico, 87801; Heizler, M.T., and Cather, S.T., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

IMPLICATIONS OF PAST EXTENTS OF RIO SALADO AND RIO PUERCO DEPOSITS IN THE SOUTHWESTERN CORNER OF THE ALBUQUERQUE BASIN, NEW MEXICO, Love, D.W., david.love@nmt.edu, Rinehart, A., and Chamberlin, R., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801; Celep, E., Department of Earth and Environmental Science, New Mexico Tech, Socorro, NM, 87801; and Koning, D., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

LITHOFACIES ANALYSIS OF THE SIERRA LADRONES FORMATION NEAR THE SEVILLETA NATIONAL WILDLIFE REFUGE HEADQUARTERS (SOUTHERN ALBUQUERQUE BASIN, NEW MEXICO): IMPLICATIONS FOR CLIFF FAULT MOVEMENT DURING THE EARLY PLEISTOCENE, Celep, E., Department of Earth and Environmental Science, New Mexico Tech, Socorro, NM, 87801, eda.celep@student.nmt.edu; Koning, D.J., and Love, D.W., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

THE ONSET OF RHYOLITE VOLCANISM AND SUBSEQUENT COLLAPSE IN THE SCHOOLHOUSE MOUNTAIN CALDERA, MOGOLLON-DATIL VOLCANIC FIELD, SOUTHWEST NEW MEXICO, Swenton, V.M., vswenton@nmsu.edu, and Amato, J.M., New Mexico State University, Las Cruces, NM, 88003; Jonell, T., Louisiana State University, Baton Rouge, LA, 70803; and McIntosh, W.C., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

THE "BOX CANYON TUFF" AND ITS RELATIONSHIP TO THE SCHOOLHOUSE MOUNTAIN CALDERA, MOGOLLON-DATIL VOLCANIC FIELD, SOUTHWEST NEW MEXICO, Amato, J.M., amato@nmsu.edu, and Swenton, V.M., Department of Geological Sciences, New Mexico State University, Las Cruces, NM, 88003; McIntosh, W., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801; and Jonell, T.N., Department of Geology and Geophysics, Louisiana State University, Baton Rouge, LA, 70803

THE LATE MIOCENE-EARLY PLIOCENE UNCONFORMITY IN THE RIO GRANDE RIFT, van Wijk, J., jolante.vanwijk@nmt.edu, and Axen, G., New Mexico Tech, 801 Leroy Place, Socorro, NM, 87801; Koning, D., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801; and Coblentz, D., Los Alamos National Laboratory, Los Alamos, NM, 87544

SEDIMENTOLOGY, STRATIGRAPHY, AND GEOCHRONOLOGY FROM EARLY(?)–MIDDLE EOCENE, POST-LARAMIDE VOLCANIC AND VOLCANICLASTIC STRATA OF THE PALM PARK FORMATION IN SOUTH-CENTRAL NEW MEXICO, Creitz, R.H., rcreitz@nmsu.edu, Hampton, B.A., Mack, G.H., and Amato, J.M., New Mexico State University, Department of Geological Sciences, Las Cruces, NM, 88003

CORRELATION OF ASH FLOW TUFFS FROM THE MOGOLLON-DATIL VOLCANIC FIELD IN SOUTHWESTERN NEW MEXICO USING LASER¬INDUCED BREAKDOWN SPECTROSCOPY (LIBS): AN ANALYSIS OF SANIDINE PHENOCRYSTS, Haskell, T.L., and McMillan, N.J., New Mexico State University, Department of Geological Sciences, Las Cruces, NM, 88003

URANIUM IN NEW MEXICO POSTERS

ASSESSING URANIUM CONCENTRATION IN STREAM SEDIMENT ON THE LAGUNA AND ISLETA PUEBLOS,Willis, B., brianne.willis@enmu.edu, Eastern New Mexico University, Portales, NM, 88130

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ENVIRONMENTAL AQUEOUS GEOCHEMISTRY OF URANIUM IN AQUIFER SYSTEMS, PAJARITO PLATEAU, NEW MEXICO, Longmire, P., patrick.longmire@state.nm.us, New Mexico Environment Department; Ground Water Quality Bureau, 1190 St. Frances Drive, Santa Fe, NM, 87502; Granzow, K., Yanicak, S., and Fellenz, D., New Mexico Environment Department; DOE Oversight Bureau, 1183 Diamond Drive, Suite B, Los Alamos, NM, 87544; Dale, M., Hazardous Waste Bureau, 1183 Diamond Drive, Suite B, Los Alamos, NM, 87544; Green, M., and Trujillo, A., New Mexico Environment Department; DOE Oversight Bureau, 1183 Diamond Drive, Suite B, Los Alamos, NM, 87544

SEQUENTIAL CHEMICAL EXTRACTION AS A METHOD TO DETERMINE URANIUM MINERAL LEACHABILITY AND SPECIATION, Pearce, A.R., alexandra.pearce@student.nmt.edu, and Walder, I.F., New Mexico Institute of Mining and Technology, EES Department, Socorro, NM, 87801; Frey, B., and Lueth, V.W., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

THE CHARACTERIZATION OF URANIUM MOBILITY AT THE JETER MINE, LADRON MOUNTAIN MINE DISTRICT, SOCORRO COUNTY, NEW MEXICO, Winton, A., Ashlynne.Winton@student.nmt.edu, and Walder, I., New Mexico Institute of Mining and Technology, Socorro, NM, 87801; and Frey, B., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

URANIUM RESOURCE POTENTIAL IN NEW MEXICO, McLemore, V.T., virginia.mclemore@nmt.edu, New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801; and Asafo-Akowuah, J., Mineral Engineering Department, New Mexico Tech, Socorro, NM, 87801

ECONOMIC AND ENVIRONMENTAL GEOLOGY POSTERS

THE RECENT ALPINE HIGH OIL AND GAS FIELD DISCOVERY, WEST TEXAS, Benson, A.L., benson1@newmex.com, University of New Mexico at Taos, PO Box 2848, Taos, NM, 87571

LEGACY MOLYBDENUM MINE TAILINGS IN THE CONTEXT OF THE QUESTA CALDERA: CHALLENGES IN DISTINGUISHING ANTHROPOGENIC FROM BACKGROUND WATER TYPES, Robinson, K.N., Kylian.Robinson@student.nmt.edu, New Mexico Tech, 1704 SE Columbia, Albuquerque, NM, 87196

ORIGIN AND MINERAL RESOURCE POTENTIAL OF THE ROSEDALE DISTRICT, SOCORRO COUNTY, NEW MEXICO, Zutah, W., william.zutah@student.nmt.edu, New Mexico Institute of Mining and Technology, Socorro, NM, New Mexico, 87801; and McLemore, V.T., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

NICKEL LEACHING FROM DUNITIC MINE WASTE, Tinsley, M., margaret.tinsley@student.nmt.edu, Walder, I.F, Stopa, F., Donatelli, J., and Embile, R., New Mexico Institute of Mining and Technology, Socorro, NM, New Mexico, 87801

METAL LEACHING FROM THE VHMS SULITJELMA MINING DISTRICT, NORWAY, Stopa, F.K., franciszka.stopa@student.nmt.edu, and Walder, I., New Mexico Institute of Mining and Technology, Socorro, NM, 87801

DISTINGUISHING CALCITE WITH AND WITHOUT BIOMARKERS USING LASER-INDUCED BREAKDOWN SPECTROSCOPY (LIBS), GUADALUPE MOUNTAINS, NEW MEXICO, Jackson, B.A., brentj@nmsu.edu, and McMillan, N.J., New Mexico State University, Las Cruces, NM, 88003

MAPPING AND STRATIGRAPHY POSTERS

THE CRETACEOUS SECTION AT PLACITAS, SANDOVAL COUNTY, NEW MEXICO, Lucas, S.G., spencer.lucas@state.nm.us, New Mexico Museum of Natural History, 1801 Mountain Road N.W., Albuquerque, NM, 87104; and Rogers, J.B., Central New Mexico Community College, 525 Buena Vista SE, Albuquerque, NM, 87106

COMING SOON – GEOLOGIC MAP OF THE MOUNT TAYLOR VOLCANO AREA, NEW MEXICO: CENTERPIECE FOR THE 2020 FALL FIELD CONFERENCE, Goff, F., candf@swcp.com, Department of Earth and Environmental Science, New Mexico Institute of Mining and Technology, Socorro, NM, 87801; Kelley, S.A., and McCraw, D.J., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801; Goff, C.J., Independent Consultant, 5515 Quemazon, Los Alamos, NM, 87544; Frey, B.A., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801; Zeigler, K., Zeigler Geologic Consulting, 14500 Oakwood Place NE, Albuquerque, NM, 87123; and McLemore, V.T., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

THE PALEOPROTEROZOIC MAZATZAL PROVINCE OF SOUTHERN NEW MEXICO: INSIGHT FROM DETAILED FIELD MAPPING AND ISOTOPE GEOCHEMISTRY, Howland, C., howlandc@nmsu.edu, and Amato, J.M., New Mexico State University, Las Cruces, NM, 88003

CHANGE IN PROVENANCE OF PROTEROZOIC METASEDIMENTARY ROCKS IN THE PICURIS MOUNTAINS BASED ON LASER-INDUCED BREAKDOWN SPECTROSCOPY (LIBS) OF DETRITAL TOURMALINE, Farnsworth-Pinkerton, S., shohauna@nmsu.edu, and McMillan, N.J., Geological Sciences, New Mexico State University, Las Cruces, NM, 88003; Dutrow, B.L., and Henry, D.J., Department of Geology & Geophysics, Louisiana State University, Baton Rouge, LA, 70803

HYDROGEOLOGY IN NEW MEXICO POSTERS

A MULTI-SCALE VISUALIZATION AND EXPLORATION OF THE MORA WATERSHED, NEW MEXICO; Zebrowski, J., jpzebrowski@nmhu.edu, New Mexico Highlands University, NMHU NRM Dept, Box 9000, Las Vegas, NM, New Mexico, 87701; Dappen, P., New Mexico Forest and Watershed Restoration Institute, Box 9000, Las Vegas, NM, New Mexico, 87701; and Sanchez, A., New Mexico Highlands University, NMHU NRM Dept, Box 9000, Las Vegas, NM, New Mexico, 87701

PRESCRIBED BURN IMPACTS ON SURFACE WATER QUALITY AND QUANTITY IN THE UPPER SANTA FE MUNICIPAL WATERSHED: BASELINE DATA AHEAD OF BURNS, Shephard, Z., zach.shephard@student.nmt.edu, and Cadol, D., New Mexico Tech, Earth and Environment Sciences Department (Hydrology), Soccoro, NM, 87801

A HYDROGEOCHEMICAL ANALYSIS AND RECHARGE EVALUATION OF CIENEGA SPRING LOCATED IN THE SANDIA MOUNTAINS, NEW MEXICO, Minitrez, A.J., alexmini@unm.edu, Crossey, L.J., and McGibbon, C., University of New Mexico, Albuquerque, NM, 87131

3D INVERSE MODELS OF MAGNETOTELLURIC DATA IN THE CENTRAL RIO GRANDE RIFT ILLUMINATE RIFT BASIN GEOMETRY AND POSSIBLE INTERACTIONS BETWEEN DEEP BRINES AND SURFACE WATERS, Folsom, M., mattfolsom99@gmail.com, and Pepin, J., New Mexico Institute of Mining and Technology, Socorro, NM, New Mexico, 87801; Peacock, J., United States Geological Survey; Person, M., New Mexico Institute of Mining and Technology, Socorro, NM, New Mexico, 87801; Kelley, S., and Love, D., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

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PROVENANCE TRENDS FROM UPPER CRETACEOUS NONMARINE STRATA IN SOUTHERN NEW MEXICO: IMPLICATIONS FOR DRAINAGE EVOLUTION AND SEDIMENT DISPERSAL ALONG THE SOUTHWESTERN MARGIN OF THE WESTERN INTERIOR SEAWAY, Hampton, B.A., bhampton@nmsu.edu, Mack, G.H., and Stopka, C.J., New Mexico State University, Dept. of Geol, Las Cruces, NM, 88003

PALEONTOLOGY POSTERS

STRATIGRAPHY AND AGE OF THE DINOSAUR¬DOMINATED FOSSIL ASSEMBLAGE OF THE UPPER CRETACEOUS HALL LAKE MEMBER OF THE MCRAE FORMATION, SIERRA COUNTY, NEW MEXICO, Lucas, S.G., spencer.lucas@state.nm.us, Dalman, S., and Lichtig, A.J., New Mexico Museum of Natural History, 1801 Mountain Road N.W., Albuquerque, NM, 87104; Elrick, S., and Nelson, W.J., Illinois State Geological Survey, 615 East Peabody Drive, Champaign, IL; and Krainer, K., Institute of Geology, Innsbruck University, Innsbruck, Austria

FOSSIL TURTLES OF THE UPPER CRETACEOUS MCRAE FORMATION, SIERRA COUNTY, NEW MEXICO, Lichtig, A.J., ajlichtig@gmail.com, and Lucas, S.G., New Mexico Museum of Natural History, 1801 Mountain Road N.W., Albuquerque, NM, 87104

A NEW CHASMOSAURINE CERATOPSID FROM THE HALL LAKE MEMBER OF THE MCRAE FORMATION (MAASTRICHTIAN), SOUTH-CENTRAL NEW MEXICO, Dalman, S.G., sebastiandalman@yahoo.com, and Lucas, S.G., New Mexico Museum of Natural History and Science, 1801 Mountain Road N.W., Albuquerque, NM, 87104

WATER-DEPTH-BASED DIFFERENCES IN AMMONOID ASSEMBLAGES FROM THE UPPER CRETACEOUS (TURONIAN) BLUE HILL MEMBER OF THE CARLILE SHALE, NORTH-CENTRAL NEW MEXICO, Foley, M.P., pfooley@gmail.com, and Lucas, S.G., New Mexico Museum of Natural History, 1801 Mountain Rd NW, Albuquerque, NM, 87104

A POSSIBLE NEW SPECIES OF *DIMETRODON* (EUPELYCOSAURIA: SPHENACODONTIDAE) FROM THE LOWER PERMIAN ABO FORMATION, SOCORRO COUNTY, NEW MEXICO, McKeighen, K.L., kentheartist1@msn.com, McKeighen, K.R., McKeighen, H.W., and Lucas, S.G., New Mexico Museum of Natural History and Science, 1801 Mountain Rd NW, Albuquerque, NM, 87104

LOWER CRETACEOUS (UPPER ALBIAN) NAUTILOIDS FROM CERRO DE CRISTO REY, DOÑA ANA COUNTY, NEW MEXICO, Sealey, P.L., ammonoidea@comcast.net, and Lucas, S.G., New Mexico Museum of Natural History, 1801 Mountain Road, NW, Albuquerque, NM, 87104; and Durney, K., 3701 Trailhead Court, Cedar Park, TX, 78613

THE FUSULIND *EOWAERINGELLA* AND THE DESMOINESIAN-MISSOURIAN BOUNDARY IN CENTRAL NEW MEXICO: REEXAMINATION OF THE GOTERA CANYON SECTION, NORTHERN MANZANO MOUNTAINS, Allen, B.D., bruce.allen@nmt.edu, New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801; and Lucas, S.G, New Mexico Museum of Natural History, 1801 Mountain Road N.W., Albuquerque, NM, 87104

MICROBIALLY INDUCED SEDIMENTARY STRUCTURES OF THE MESOPROTEROZOIC LANORIA FORMATION, FRANKLIN MOUNTAINS, EL PASO COUNTY, TEXAS, Kappus, E.J., eric_kappus@hotmail.com, The University of Texas at El Paso, El Paso, TX, 79912; Lucas, S.G., New Mexico Museum of Natural History, 1801 Mountain Road N.W., Albuquerque, NM, 87104; and Stimson, M.R., New Brunswick Museum, 277 Douglas Ave., Saint John, New Brunswick, E2K1E5, Canada

LATE TRIASSIC METOPOSAURID AMPHIBIAN SKULL ALLOMETRY: COMPARISON OF THE LAMY, NEW MEXICO, POPULATION TO FOUR OTHER POPULATIONS, Rinehart, L.F., larry.rinehart@earthlink.net, and Lucas, S.G., New Mexico Museum of Natural History and Science, 1801 Mountain Rd NW, Albuquerque, NM, 87104

MAGMAS AND CALDERAS POSTERS

THE RATON-CLAYTON VOLCANIC FIELD: EVALUATING OPEN-SYSTEM PROCESSES IN MAGMAS DERIVED BENEATH THE GREAT PLAINS, Pinkerton, S., sidpinkerton@yahoo.com, and Ramos, F.C., New Mexico State University, Las Cruces, NM, 88003; and Zimmerer, M., New Mexico Bureau of Geology and Mineral Resources, New Mexico Tech, Socorro, NM, 87801

MAJOR ELEMENTS, TRACE ELEMENTS, AND SR, ND, AND PB ISOTOPES OF WHOLE ROCKS FROM THE DOÑA ANA MOUNTAINS: IDENTIFYING POTENTIAL CONNECTIONS BETWEEN CALDERA-RELATED IGNEOUS ROCKS IN SOUTH-CENTRAL NEW MEXICO, Askin, T.J., tyler537@nmsu.edu, Ramos, F.C., and Stevens, P.J., New Mexico State University, Las Cruces, NM, 88001

A MODEL FOR SOCORRO MAGMA BODY EMPLACEMENT, van Wijk, J., jolante.vanwijk@nmt.edu, Yao, S., and Axen, G., New Mexico Tech, 801 Leroy Place, Socorro, NM, 87801

USING A NEW TEMPORARY SEISMIC NETWORK TO DETECT EARTHQUAKES IN THE SOCORRO MAGMA BODY REGION, Vieceli, R.E., rhiannon.vieceli@student.nmt.edu, and Bilek, S.L., New Mexico Institute of Mining and Technology, Socorro, NM, 87801; Aster, R.C., Colorado State University, CO; Lowe-Worthington, L., and Schmandt, B., University of New Mexico, Albuquerque, NM, 87131

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