

THE COAL GEOLOGIST

Newsletter of the Coal Geology Division of the Geological Society of America

Fall 2005

Volume 31, Number 1

FROM THE DESK OF THE DIVISION CHAIR GRETCHEN HOFFMAN

The Annual meeting of GSA is quickly approaching and I hope to see many coal division members there. Being a small division, we try to condense all our activities at the beginning of the conference, including our awards and business meeting. In this time of drastically reduced travel budgets, we hope this will make it easier to attend the meeting and get the most out of the meeting. We have a Saturday (Oct 15) field trip and all division-sponsored sessions will be on Sunday, October 16, beginning at 8 am. The business meeting and awards session will follow the General Coal session in the same meeting room.

My thanks to Chris Carroll, first vice chair for organizing our talks for the meeting and to Jeff Quick (Utah Geological Survey) for putting together a great topical session on Mercury in Coal. This is a timely topic and I am glad to see a full session. We also have a general session of talks. Thanks to Glenn Stracher and his co-leaders for organizing the field trip on Coal fires in the Ferron Sandstone. Glenn had a very successful coal fires session and field trip in Denver last year and I expect this field trip will attract the same amount of interest.

Thanks to Thomas Demchuk, we will have a poster on display in the exhibit hall. GSA offers all divisions this opportunity at no cost.

I hope everyone will stay for the business meeting; we will be presenting the Division's most prestigious award, the Gilbert H. Cady, and announce the winner of the Medlin Scholarship. This year's Cady recipient is Dr. Art Cohen, presently a Professor at the University of South Carolina. Dr. Jack Crelling will present the citation and award.

We do have a few things to discuss at the meeting, including the revision of the Coal Division by-laws, division dues, nominees for positions on the management board, and better ways to communicate with our members. I would encourage all of you who would like to receive notices by email to indicate so on you GSA

annual membership form. If you do not check the box, the GSA will not allow any emails to be sent to you.

I look forward to seeing many of you at the meeting in Salt Lake.

CGD Webmaster Needed

The Coal Geology Division is searching for a new webmaster to host the website and keep it up to date with all the pertinent Division information. If you are interested in taking care of the Division website, please contact Gretchen Hoffman or Christopher Carroll. We look forward to your participation in the Division.

Coal Geology Division Management Board

Chair: Gretchen Hoffman, New Mexico Bureau of Mines and Mineral Resources, Socorro, NM;
gretchen@gis.nmt.edu

First Vice-Chair: Christopher Carroll, Colorado Geological Survey, Denver, CO:
chris.carroll@state.co.us

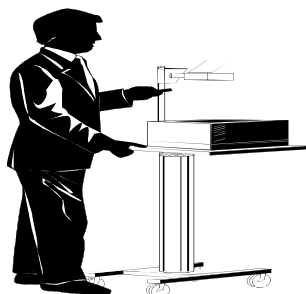
Second Vice-Chair: Alan Kolker, U.S. Geological Survey, Reston, VA: akolker@usgs.gov

Past Chair: R. Marc Bustin, University of British Columbia, Vancouver, British Columbia;
mbustin@eos.ubc.edu

Secretary-Treasurer: Thomas D. Demchuk, ConocoPhillips, Houston TX;
thomas.d.demchuk@conocophillips.com

Member-at-Large: Leslie Ruppert, United States Geological Survey, Reston, VA:
lruppert@usgs.gov

Coal Geology Division Website:
<http://www.isgs.uiuc.edu/coalsec/GSA/>



**COAL GEOLOGY
TOPICAL SESSION**
Sunday, October 16th
Salt Palace
Convention Center
254B
8:00AM-12:00PM

Topical Session No. 119

Mercury in Coal

Presiding:

Jeffery C. Quick and Alan Kolker

8:00 AM Introductory Remarks

8:15 AM **MERCURY IN COAL: WHERE DOES IT COME FROM?:** **GUSTIN, Mae Sexauer**, ENGLE, Mark, ERICKSEN, Jody, FAY, Laura, MILLHOLLEN, Allison, and STAMENKOVIC, Jelena, NRES Dept MS 370, University of Nevada, Reno, NV 89557, msg@unr.nevada.edu

8:35 AM **IDENTIFICATION OF MERCURY IN SASKATCHEWAN CORE SAMPLES:** **PODWIN, Krista G.A.**, Power Production Environmental Initiatives, SaskPower, 2901 Powerhouse Drive, Regina, SK S4N0A1 Canada, kpodwin@saskpower.com.

8:50 AM **MERCURY IN PEOPLE'S REPUBLIC OF CHINA COAL:** **BELKIN, Harvey E.**, U.S. Geol Survey, MS 956, Reston, VA 20192, hbelkin@usgs.gov, FINKELMAN, Robert B., U.S. Geological Survey, MS 956 National Center, Reston, VA 20192, and ZHENG, Baoshan, Institute of Geochemistry, Guiyang, 550002, China

9:05 AM Break

9:20 AM **MERCURY IN COAL - PRECOMBUSTION MANAGEMENT OPTIONS FOR EMISSION CONTROL:** **TOOLE O'NEIL, Barbara**, Tetra Tech EM Inc, 135 Main St, Suite 1800, San Francisco, CA 94105, barbara.tooleoneil@ttemi.com.

9:40 AM **TECHNOLOGY-SPECIFIC MERCURY EMISSIONS FROM COAL COMBUSTION BY U.S. COUNTY OF COAL ORIGIN:** **QUICK, Jeffrey C.**, Utah Geological Survey, 1594 W. North Temple, Salt Lake City, UT 84114-6100, jeffreyquick@utah.gov.

9:55 AM **BEHAVIOR OF MERCURY IN COAL COMBUSTION SYSTEMS:** **SENIOR, Constance L.**, Reaction Engineering International, 77 W. 200 South, Salt Lake City, UT 84101, senior@reaction-eng.com.

10:15 AM **COMPLIANCE PLANNING FOR MERCURY CONTROL - AN INTEGRATED APPROACH:** **O'CONNOR, David**, EPRI, 3412 Hillview Ave, Palo Alto, CA 94312, doconnor@epri.com and **TOOLE O'NEIL, Barbara**, Tetra Tech EM Inc, 135 Main St, Suite 1800, San Francisco, CA 94105

10:30 AM Break

10:45 AM **TRANSMISSION ELECTRON MICROSCOPY STUDY OF THE SITES OF MERCURY AND OTHER TRACE ELEMENTS IN A KENTUCKY FLY ASH:** **HOWER, James C.**, Center for Applied Energy Research, University of Kentucky, 2540 Research Park Dr, Lexington, KY 40511-8479, hower@caer.uky.edu, **GRAHAM, Uschi M.**, Center for Applied Energy Research, University of Kentucky, 2540 Research Park Drive, Lexington, KY 40511, and **DOZIER, Alan**, Chemical & Materials Engineering, University of Kentucky, Lexington, KY 40506

11:00 AM **BEHAVIOR OF MERCURY IN FGD BYPRODUCTS:** **KAIRIES, Candace**, SCHROEDER, Karl, and **CARDONE, Carol**, National Energy Technology Laboratory (NETL), U.S. Department of Energy (DOE), PO Box 10940, Pittsburgh, PA 15236, candace.kairies@netl.doe.gov

11:15 AM **CORRELATION OF NATION-WIDE MERCURY SOIL TRANSECTS & MONITORING DATA IN THE U.S:** **PHILLIPS, Michael George William**, School of Public Health and Health Studies/Environmental & Occupational Health, The George Washington University, Ross Hall, Washington, DC 20006, mp31415@gwu.edu and **BUNNELL, Joseph**, U.S. Geol Survey, 956 National Center, Reston, VA 20192

11:30 AM **EVOLUTION OF MERCURY INVENTORY FROM LOCAL TO GLOBAL:** **LEVIN, Leonard**, Environment, Electric Power Research Institute, 3412 Hillview Ave, Palo Alto, CA 94303, llevin@epri.com.

**GSA COAL GEOLOGY DIVISION
BUSINESS MEETING
AND AWARDS RECEPTION**

Salt Palace Convention Center 254B

SUNDAY, OCTOBER 16th

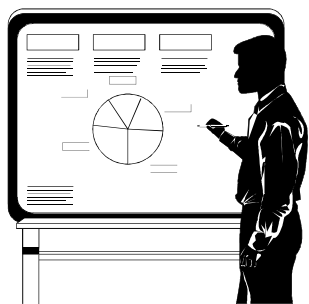
5:30 - 6:30PM

Chair's Address

Gilbert H. Cady Award Presentation

Cash Bar and Munchies

Other Business



**COAL GEOLOGY
GENERAL SESSION**
Sunday, October 16th
Salt Palace
Convention Center
254B
3:30-5:10PM

Presiding:
**Stephen F. Greb and
Christopher J. Carroll**

3:30 PM NEW AREAS FOR COAL MINING IN THE LOWER WHITE RIVER COAL FIELD, RIO BLANCO COUNTY, COLORADO: **CARROLL, Christopher J.**, Department of Natural Resources, Colorado Geol Survey, 1313 Sherman St. #715, Denver, CO 80203, Chris.Carroll@state.co.us.

3:50 PM CONTRASTING SIGNATURES OF COAL METAMORPHISM DUE TO DIKE AND SILL INTRUSIONS: AN EXAMPLE FROM THE RATON BASIN, CO AND NM: **COOPER, Jennifer Rebecca**, Geological Sciences, Univ of Missouri-Columbia, Columbia, MO 65211, jrc9q3@mizzou.edu, WHITTINGTON, Alan, Department of Geological Sciences, University of Missouri, Columbia, MO 65211, RIMMER, Susan M., Geological Sciences, Univ of Kentucky, 101 Slone Building, Lexington, KY 40506-0053, and CRELLING, John C., Department of Geology, Southern Illinois Univ, Carbondale, IL 62901

4:10 PM ASSESSING THE CARBON SEQUESTRATION POTENTIAL OF "UNMINEABLE" COAL BEDS IN THE APPALACHIAN BASIN: **GREB, Stephen F.**¹, SLUCHER, Ernie R.², VENTERIS, Erik R.², BREZINSKI, David K.³, MARKOWSKI, Toni⁴, BLAKE, Bascombe M. Jr⁵, and FEDORKO, Nick III⁶, (1) Kentucky Geological Survey, Univ of Kentucky, 228 Mining and Mineral Resources Building, Lexington, KY 40506-0107, greb@uky.edu, (2) Ohio Division of Geological Survey, 2045 Morse Rd, Bldg. C-1, Columbus, OH 43229-6693, (3) Maryland Geol Survey, 2300 St. Paul Street, Baltimore, MD 21218, (4) Pennsylvania Geological Survey, 3240 Schoolhouse Road, Middletown, PA 17057-3534, (5) West Virginia Geological and Economic Survey, 1 Mont Chateau Road, Morgantown, WV 26507-0879, (6) Coal Program, West Virginia Geol and Economic Survey, Mont Chateau Research Center, P.O. Box 879, Morgantown, WV 26507-0879

4:30 PM SW INDIANA COAL CORRELATION USING TRACE ELEMENTS: **STEVANOVIC-WALLS, Ivana M.**, Landsdale, PA 9446, stevvanja@yahoo.com.

4:50 PM RIMSWAMP COAL-FORMING ENVIRONMENTS IN FLOODPLAINS OF THE SOUTHEASTERN UNITED STATES: **COHEN, Arthur D.**¹, HUMPHRIES, C. Allison¹, SHELLEY, David C.¹, PROVENCHER, Philip², and COOK, Laura³, (1) Geological Sciences, Univ of South Carolina, 700 Sumter Street, Columbia, SC 29208, cohen@geol.sc.edu, (2) Philips Exeter Academy, 20 Main St, Exeter, NH 03833, (3) SC Governor's School for Science and Mathematics, 401 Railroad Ave, Hartsville, SC 29550

COAL GEOLOGY DIVISION SPONSORED FIELDTRIP

Geology and Natural Burning Coal Fires of the Ferron Sandstone Member of the Mancos Shale, Emery Coalfield, Utah
Saturday, October 15, 2005

Glenn B. Stracher, East Georgia College, Swainsboro, GA 30401, +1-478-289-2073, fax +1-478-289-2080; **Paul B. Anderson; David E. Tabet; Janet L. Stracher.**

On this trip we will travel to the Emery coalfield in central Utah where we will examine and discuss the structural geology and coal stratigraphy of the Ferron Sandstone Member of the Mancos Shale, visit actively burning natural coal fires, and gain hands-on experience with data collecting techniques for mine fires research. Subsidence features, gas vents, and ground fissures associated with Utah's coal fires will be observed.

Max.: 36; min.: 12. Cost: US\$90 (1L, 1D, R, vans).

TO THE GENERAL CGD MEMBERSHIP

I realize that I have not been overly forthcoming with newsletters over the past short while, and I offer my apologies to the Management Board and to the general CGD membership. In order to keep publishing regular Newsletters for the membership I urge all the CGD members to send me relevant interesting material. I will attempt to scour other coal geology websites and with your help I hope to get The Coal Geologist out on a more routine basis.

I look forward to seeing many of you in Salt Lake City at the upcoming GSA meeting.

Sincerely submitted,
Thomas D. Demchuk, GSA-CGD Secretary-Treasurer

Geological Society of America
3300 Penrose Place
P.O. Box 9140
Boulder, CO 80301-9140

A.L Medlin Scholarship Winner

The Coal Geology Division is proud to announce that Paul Kaelin of Southern Illinois University has been chosen as this year's recipient of the A.L. Medlin Research Scholarship. Congratulations Paul! There was no field scholarship awarded this year.

New CGD Member-at-Large

The Coal Geology Division is pleased to announce that Leslie "Jingle" Ruppert (USGS, Reston) has agreed to be the Division's member-at-large. Along with select Division duties, as a member of the CGD Management Board Jingle will help in guiding the Division to a bright and prosperous future. Please welcome Jingle as a member of CGD Management Board.

CGD Finances

As of June 24, 2005, CGD assets stood at \$4404.49. A major expense for the year included the purchase of Cady Award Trays. Income was primarily from dues payments.

Upcoming Meetings

2005 Geological Society of America Annual Meeting, October 16-19, 2005 Salt Lake City, UT

2005 American Geophysical Union Fall Meeting, December 5-9, 2005, San Francisco, CA

2006 American Association of Petroleum Geologists Annual Meeting, April 9-12, 2006, Houston, TX

2006 The Society for Organic Petrology Annual Meeting, September 15-22, Beijing, China

2006 Geological Society of America Annual Meeting, October 22-25, 2006 Philadelphia, PA

2006 American Association of Petroleum Geologists, International Conference, November 5-8, 2006, Perth, Australia

2007 Geological Society of America Annual Meeting, October 28-31, 2007 Denver, CO

ANY OTHER MEETINGS YOU THINK WILL BE OF INTEREST TO THE GENERAL CGD COMMUNITY? PLEASE PASS ON THE INFORMATION