



Introduction

Welcome back to the WoCQI newsletter! The posting of Issue 4 of the WOCQI newsletter on the USGS website was less of a success than anticipated. Therefore this and the final newsletter in 2007 will be sent via email to coal researchers interested in world coal occurrence and quality. Final publication of the WoCQI data will be completed by September 30, 2007. Hopefully the contacts and collaboration that have developed as a result of the work will continue after that date to benefit all of those involved.

This newsletter highlights the belated arrival of the proceedings of the September, 2001 scientific meeting, “*Coal Quality: Global Priorities*” hosted at the U.S. Geological Survey, Reston, Virginia. The conference proceedings have been published as USGS Circular 1272, a CD-ROM that is a compilation

of presentations, papers, short courses, and discussions. Even if you attended the conference, your physical mailing address may not have been recorded. If you have not received a copy of the CD-ROM, please e-mail your postal mail address, or the address of any other potentially interested party, to Susan Tewalt (stewalt@usgs.gov). Let us know if you need multiple copies of the CD-ROM - we have plenty!

Also of note are other new WoCQI publications, reviewed below. These include a digital geologic map and a shaded relief map of Venezuela, which are published online at the USGS website. The latest updates on the status of sample collection from collaborating countries are also provided in tabular form later in this newsletter.

If you do not wish to receive the final newsletter, please reply via e-mail to Susan Tewalt at stewalt@usgs.gov.

Featured Story: Coal Quality: Global Priorities Conference Proceedings

The proceedings of the September 24-26, 2001 conference, “Coal Quality: Global Priorities” have been published as USGS Circular 1272. The CD-ROM compiles nearly all the presentations, papers, posters, short courses, and discussions held during the conference. Please send your physical mailing address via e-mail to Susan Tewalt (stewart@usgs.gov) to receive copies.

The contents of USGS Circular 1272 include the following:

Introduction

Dennen & Pierce

Oral Presentations

The Vision 21 Energy Plant: Clean Energy from Fossil Fuels (Ruth)
Coal Quality Requirements for Next Generation Power Production (O'Connor)
Characterizing Coals for Environmental Quality (Davidson)
Coal Quality, the Key Factor to Affect Energy Utilization Efficiency and Environmental Emissions in China (Mao)
Factors Affecting Future Australian Coal Exports (Earley)
The Status of Coal in S. Africa: Production, Utilization, Characterization (Falcon & Keyser)
Russia's Coal Industry: Retrospective, Current Status, Perspective (Kochetkov)
A Perspective on Indian Coal Resources (Sinha)
The World Coal Quality Inventory (Finkelman)
Coal Quality and Resources of the Former Soviet Union: an Arcview Project (Brownfield and others)

Poster Presentations

Characterization of Turkish coals: an Example of International Cooperation to Develop a World Coal Quality Inventory (Palmer and others)
Coal Quality and Trace Element Characteristics of Samples from the Sohagpur Coalfield, North-central India (Warwick and others)
Coal quality of Selected Korean Coal Basins (SanFilipo and others)
The Occurrence of Endemic and Skeletal Fluorosis from Domestic Combustion of Coal in Guizhou Province, China (Belkin)
Human Health Effects of Domestic Combustion of Arsenic-rich Coal in Southwestern Guizhou province, China (Belkin and others)
Quality of Selected Hungarian Coals (Landis and others)
Coalbed Gas in Hungary (Landis and others)
Arsenic in Twelve Coal Beds/zones in Northern and Central Appalachian Basin Coal Regions (Bragg and others)
Mercury in U.S. Coal – Abundance, Distribution, and Models of Occurrence (Tewalt and others)
Quantifying the Modes of Occurrence of Trace Elements in Coal Using Sequential Laboratory Leaching Techniques (Palmer and others)
Mineral, Energy, and Fertilizer Resources of the Northern Cast of Peru: Perspective from the Santa Rita B Archaeological Site (Brooks and others)
Update: World coal quality inventory – Peru (Brooks and Willett)
Update: World coal quality inventory – Argentina (Brooks and Willett)
Arsenic-rich Pyrite in Coals of the Warrior Field, northwestern Alabama, USA: Mineralogical Evidence for a Hydrothermal Origin (Kolker and others)

Short Courses

- Coal Quality Characterization: Analytical Methods (Palmer and others)
- Health Impacts of Coal: Should we be concerned? (Finkelman and Bunnell)
- The Use of American Society for Testing Materials (ASTM) standards (Addington and Palmer)

Break Out Session Results

- Global or Regional Coal Characterization Protocols
- Development of Modern Coal Quality Databases
- Coal Reserve Characterization and Beneficiation
- Environmental Aspects, Including Air Quality and Water Quality Issues
- Characterization of Coal for Technological Performance
- Characterization of Coal for Byproduct Use and Disposal

More WoCQI Publications

Venezuela - The geology of Venezuela, draped over a shaded relief image, has been published in digital format. Work is proceeding slowly on getting changes made to the geologic contacts in Adobe Illustrator® format back into a geographic information system (GIS) format, so that the geologic contacts can be used in mapping applications. Right now the source elevation data for the shaded relief grid can be downloaded at the "seamless download" USGS website <http://seamless.usgs.gov>. A graphic of the shaded relief image has been published as USGS Open-file Report 2004-1322 ("Digital shaded-relief map of Venezuela" by C.P. Garrity, P.C. Hackley, and Franco Urbani) and can be obtained at <http://pubs.usgs.gov/of/2004/1322/>.

The Venezuela digital geologic map image has been published as USGS Open-File Map 2005-1038 ("Geologic shaded-relief map of Venezuela" by P.C. Hackley, Franco Urbani, A.W. Karlsen, and C.P. Garrity) and can be downloaded at <http://pubs.usgs.gov/of/2005/1038>. The collaborators on the Venezuelan geology map (Urbani at Universidad Central de Venezuela) hope to publish a Spanish version of the map in 2006. In addition, a separate report on some of the Venezuelan coal samples was published ("Petrology, mineralogy, and geochemistry of mined coals, western Venezuela" by P.C. Hackley, P.D. Warwick, and E. Gonzalez, 2005, IJCG, v. 63, p. 68-97).

Producing the geologic map of Venezuela was an outgrowth of work being compiled for a CD-ROM publication on the WoCQI samples collected for the South American continent. Summaries of the coal sample data for the countries of Argentina, Brazil, Chile, Colombia, Peru, and Venezuela are included in written chapters on these countries; a single chapter summarizes coal in the countries of Bolivia, Ecuador, Paraguay, and Uruguay. The South American CD-ROM should be released in mid-2006, as a USGS Open-file Report. However, GIS information will not be included on the CD-ROM at this time.

The results of WoCQI collaboration on Turkish coal chemistry were published in volume 60 of the Journal of International Coal Quality ("Characterization of Turkish coals: a

nationwide perspective”, 2004, by C.A. Palmer, Ertem Tuncali, K.O. Dennen, T.C. Coburn, and R.B. Finkelman, p. 85-115). The Turkey coal data is still available through <http://www.geode.gov>. A variety of talks on USGS international coal work were presented at recent coal conferences, including the Pittsburgh Coal Conference in 2004.

Sample status update ---- Please contact the USGS person listed in the following table to find out what work has been completed in your country of interest. Not all submitted samples have had analyses completed. If your agency has collaborated and is not listed as being a participant, please email stewart@usgs.gov.

WoCQI Country Sample Status in Coal-Bearing Countries of the World

'Italicized text' means contact was initiated, but no commitment made for sample collection.

Red color indicates either older, archival USGS samples and/or samples obtained through non-USGS funding

COUNTRY	No. of SAMPLES	CURRENT USGS CONTACT	FOREIGN COLLABORATOR
<i>Afghanistan</i>	<i>34</i>	John SanFilipo	<i>Ministry of Mines and Industries</i>
Antarctica	16	Susan Tewalt	CRL Energy Ltd. (New Zealand); Univ. of Melbourne, Victoria
Argentina	7	Paul Hackley	Servicio Geologico Minero Argentino
<i>Armenia</i>		Brenda Pierce	<i>Ministry of Mineral Resources</i>
Australia	7	Susan Tewalt	NRG Flinders;CSIRO
Austria	1	John Repetski	
Bangladesh	41	Bob Milici ; Ed Landis	Geological Survey of Bangladesh
Belgium	10	Ron Affolter	Geological Survey of Belgium
Bhutan	0	John SanFilipo	<i>Dept. of Geology and Mines</i>
Bolivia	1	Paul Hackley	none
Bosnia	0	Susan Tewalt	
Botswana	13	Susan Tewalt	Dept. of Geological Survey
Brazil	64	Alex Karlsen	Universidade Federal do Rio Grande do Sul; UFRGS – Centro de Tecnologia
Bulgaria	7 (184)	Mick Brownfield	
Burma (Myanmar)	0	John SanFilipo	
Canada	50	Susan Tewalt	Geological Survey of Canada
Chile	23	Peter Warwick , Paul Hackley	Universidad de Concepcion
Colombia	16	Susan Tewalt	INGEOMINAS
Congo	0	Curtis Palmer	
<i>Costa Rica</i>	<i>2</i>	Curtis Palmer	
Croatia	0	Curtis Palmer	
Czech Republic	47	Ron Affolter	Technical University
Egypt	12	Susan Tewalt	Central Metallurgical R&D Institute; Desert

			Environmental Research Institute
France	3	Ron Affolter	HBL (Houilleres du Bassin de Lorraine)
Georgia	2	Susan Tewalt	Ministry of Fuel and Energy
Germany	0?	Ron Affolter	Bundesanstalt for the Geowissenschaften und Rohstoffe
Greece	2	Susan Tewalt	Inter kontakt Energo
Greenland	0	Susan Tewalt	<i>Geological Survey of Denmark & Greenland</i>
Guatemala	1	Susan Tewalt	MexPetrol Guatemala Corp.
Hungary	39	Ron Affolter , Ed Landis	USGS
India, Eastern	108	Peter Warwick , Bob Milici	Central Fuels Research Institute; Geological Survey of India
India, Western	8	John SanFilipo	Central Arid Zone Reclamation Institute; Rajasthan State Mineral Development Corp.
Indonesia	8	John SanFilipo	
Iran	38	John SanFilipo	Geological Survey of Iran
Ireland	1	Susan Tewalt	None
Italy	0	Harvey Belkin	<i>University of Naples</i>
Japan	2	John SanFilipo	Japan Coal Corporation (JCOAL)
Kazakhstan	18	John SanFilipo	IGEM Russian Academy of Sciences
Korea, South	11	John SanFilipo	Korea Institute fo Geology, Mining, & Materials
Korea, North	50	John SanFilipo	Institute of Geochemistry- Academia Sinica
Kyrgyzstan	16	Ron Affolter	
Laos	0	John SanFilipo	<i>Dept. of Geology and Mines via Electricitie De Laos</i>
Macedonia	0	Susan Tewalt	<i>Interkontakt Energo</i>
Malawi	4	Bob Finkelman	
Malaysia	0	John SanFilipo	
Mauritania	2	Susan Tewalt	
Mexico	0	Peter Warwick	
Mongolia	37	John SanFilipo	Dept. of Fuels and Energy
Morocco	0	John Repetski	<i>Directeur de la Geologie, Ministere de L'Energie et des Mines</i>
Mozambique	1	Susan Tewalt	Dept. de Geologia, Universidade Eduardo Mondlane
Nepal	0	John SanFilipo	<i>Dept. of Geology and Mines</i>
New Zealand	10	Bob Finkelman	CRL, Inc.
Niger	0	Curtis Palmer	
Nigeria	0	Curtis Palmer	Federal University of Technology, Dept. of Geology
Norway (Spitsbergen)	26	Ron Affolter	Store Norske Spitsbergen Kulkompani
Pakistan	1000	John SanFilipo	Pakistan Geological Survey
P.R. China	340	Harvey Belkin , Bob Finkelman	Institute of Geochemistry- Academia Sinica
Peru	16	Susan Tewalt	Universidad Nacional de Ingeniería; Instituto Geológico Minero y Metalúrgico
Philippines	6	John SanFilipo	Dept. of Energy, Coal and Nuclear Minerals Division
Poland	5 (archival)	Susan Tewalt	<i>Polish Institute of Geology</i>
Portugal	2	Susan Tewalt	Departamento de Geologia, Universidade do Porto

Romania	12	Susan Tewalt	Geological Survey of Romania; Romania Ministry of Health
Russia	35	Mick Brownfield	Vernadsky State Geological Museum; IGEM Russian Academy of Sciences; <i>Moscow State Mining University</i>
Serbia	100 (archival); 2	Jingle Ruppert	INKOS
Slovakia	See Czech Republic		
Slovenia	0	John Repetski	<i>Geological Survey of Slovenia</i>
South Africa	36	Bob Finkelman	SASOL; South African Bureau of Standards
Spain	8	Susan Tewalt	Consejo Superior de Investigaciones Cientificas; Ministerio de Ciencia y Tecnologia
Swaziland	0	Bob Finkelman	South African Bureau of Standards
Taiwan	4	John SanFilipo	National Central University
Tajikstan	0	Brenda Pierce	None
Tanzania	3	Curtis Palmer	Muhimbili University College
Thailand	23	John SanFilipo	Chiang Mai University
Trinidad	0	Susan Tewalt	
Turkey	143	Curtis Palmer	Directorate of Mineral research and Exploration
Turkmenistan	0	John SanFilipo	
Ukraine	29 (4 from high-Hg mines)	Allan Kolker	Donetsk State Technical University; Institute of Physical Organic & Coal Chemistry
United Kingdom	39 composite, 232 bench samples	Susan Tewalt	University of Sheffield
USA	7500 (archival)	Curtis Palmer	
Uzbekistan	0	John SanFilipo	
Venezuela	38	Paul Hackley	Universidad Central de Venezuela
Vietnam	6	Curtis Palmer	Coalimax (marketed coal blends)
Zambia	5	Susan Tewalt	Dept. of Geology, School of Mines, Univ. of Zambia
Zimbabwe	0	Curtis Palmer	Geology Dept., University of Zimbabwe

