General Secretaries Note

Dear colleagues and friends of IMWA, this year’s IMWA symposium is our first meeting in Latin America. In the name of the Executive Council I would like to thank our Brazilian friend Carlos Bertachini for his offer to host this symposium in Belo Horizonte. Also, I would like to express my gratitude to IBRAM, Instituto Brasileiro de Mineração to promote our meeting in a close co-operation.

Unfortunately, the preparations for our meeting were overshadowed by the sudden and unexpected death of our Vice President and long time Treasurer Vladimir Straskraba. Hearing that the meeting in Poland was the last time, we all were together with Vladimir, caused a shock to all of us! Vladimir had offered to take over an active part in this year’s meeting – we will keep his warmth and hospitality in mind during the whole duration of this meeting.

Brazil currently belongs to the most important mining countries in the world with a last year’s growth rate of 12% in the oil and mining industry. Therefore, the 9th Brazilian Mining Congress and EXPOSIBRAM are an outstanding platform to exchange the knowledge gathered under the IMWA members with that of our Brazilian colleagues and friends. Especially in the last decade, Brazilian authorities and mining companies became aware of the huge environmental problems of mining and ore processing. Everybody knows, that especially in remote areas, which are numerous in Brazil, water treatment and environmental protection sometimes could become difficult. Energy and construction costs are enormous, and especially there, innovative and clever techniques may be applied to. Due to the large ore deposits that can be found in Brazil, mines are becoming deeper and more space is used by them. Not only are the treatment or drainage of mine water of importance, but the safety of workers and material. Therefore, hydrogeological exploitation and exploration are a great concern of today’s mining companies.

We think, that the co-organised IMWA symposium and Brazilian Mining Congress are an excellent opportunity to get into contact and to get to know each other. The problems that have to be solved, can be solved, and will be solved in the future will be discussed together on a broad basis.

As in the past, I hope, that this meeting and these proceedings will become a valuable tool in the mine water field. And in the case you, as a first time participant in an IMWA meeting, enjoyed our association’s mood, we would be happy to have you as a new IMWA member! Enjoy your time at the meeting and also enjoy the presentations given herein!

Glückauf

Dr. Christian Wolkersdorfer
General Secretary
LECTURES

TECHNICAL SESSION

INTERNATIONAL MINE WATER ASSOCIATION - IMWA

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Clicando em Organizing Committee

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Peter James Norton (UK)
Rafael Fernandez-Rubio (Spain)
Richard Cornelli (UK)
Robert L.P. Kleinmann (USA)
Vladimir Straskraba (USA)

Clicando em Lectures

LECTURES:
Predicting Mine Water Quality at Surface (Opencast) Coal Mines
Robert L.P. Kleinmann, National Energy Technology Laboratory, U.S. Department of Energy, USA

Reactive Transport Modeling for Flooding an Abandoned in Situ Leaching-Uranium Mine
Broder J. Merkel, Institute for Geology Chair of Hydrogeology Head of Institute Gustav Zeuner, Germany

Studies of Pit Lake Formation - After the Completion of Mining
Vladimir Straskraba and David Hay, TRC Hidro-Geo Consultants, USA

Uranium Mining and Rehabilitation in Germany
Broder J. Merkel, Institute for Geology Chair of Hydrogeology Head of Institute Gustav Zeuner, Germany

Clicando em Technical Session:
TECHNICAL SESSION

SESSION: ACID ROCK DRAINAGE AND MINE WATER QUALITY

Characterizing the Evolution of Acid Rock Drainage Within an Overburden Dump: Loy Yang, Australia
Julie Elders, Monash University - Earth Sciences Department, Australia

Dewatering in the Hot Groundwater Conditions at Lihir Gold
Stephanie Williamson, Lihir Management Company, Placer (Granny Smith) Pty Ltd, Indonesia
Richard I. J. Vogwill, URS Corporation, Australia

Mine Water Quality Prediction at Surface Coal Mines in the United States
Robert L.P. Kleinmann, National Energy Technology Laboratory, U.S. Department of Energy, USA

Remediation of Acid Rock Drainage at the Poços de Caldas Uranium Mining Site – Brazil
Horst Monken Fernandes, IRD/CNEN, Brazil
Mariza Ramalho Franklin, IRD/CNEN, Brazil

Surface Water Quality Parameters in an Iron Mine Region, Quadrilátero Ferrífero, Minas Gerais, Brazil
Adivan Teresinha Costa, Universidade Federal de Ouro Preto - UFOP, Departamento de Geologia, Brazil
Hermínio Arias Nalini Jr., Universidade Federal de Ouro Preto - UFOP, Departamento de Geologia, Brazil
Jorge Carvalho de Lena, Universidade Federal de Ouro Preto - UFOP, Instituto de Ciências Exatas e Biológicas, Brazil
Margarete Mages, UFZ - Centre for Environmental Research, Department for Inland Water Research, Brückstr, Germany
Kurt Friese, Universidade Federal de Ouro Preto - UFOP, Departamento de Geologia, Brazil

Tracer Test in the Abandoned Fluorspar Mine Strassberg/Harz Mountains, Germany
Christian Wolkersdorfer and Andrea Hasche, TU Bergakademie Freiberg, Lehrstuhl für Hydогeologie, Germany

Water Control in Metals Mining  
Ernest J. Kipko, Spetstamponazgeologia (STG), Ukraine  
Yuriy N. Spychak, STG, Ukraine  
Yuriy A. Polozov, STG, Ukraine

SESSION: MINE WATER HYDROGEOLOGY

Águas Claras Mine – A Successful Dewatering Story  
Cesar Augusto Paulino Grandchamp, Minerações Brasileiras Reunidas S/A MBR, Brazil  
Antônio Carlos Bertachini, MSc, MDGEO Serviços de Hidrogeologia Ltda., Brazil  
Eduardo von Sperling, Federal University of Minas Gerais, Department of Sanitary and Environmental Engineering, Brazil  
Danilo Carvalho de Almeida, MDGEO Serviços de Hidrogeologia Ltda., Brazil

Dewatering of Iron Ore Mines and Capability to Predict Environmental Impacts – The Experience of MBR  
Leandro Quadros Amorim, M.Sc., Minerações Brasileiras Reunidas S/A – MBR, Brazil  
Cesar Augusto Paulino Grandchamp, Minerações Brasileiras Reunidas S/A – MBR, Brazil  
Antônio Carlos Bertachini, MDGEO Serviços de Hidrogeologia Ltda., Brazil

Hydrogeological Aspects of the Shutdown of the Idrija Mercury Mine  
Bojan Rezun, Rudnik Zivega Srebra Idrija v Zapiranju d.o.o., Slovenija  
Joze Janez, Geologija d.o.o., Slovenija  
Tatjana Dizdarevic, Rudnik Zivega Srebra Idrija v Zapiranju d.o.o., Slovenija

Hydrogeological Model of the Itabira Iron Ore District  
Agostinho Fernandez Sobreiro Neto, Cia. Vale do Rio Doce - CVRD, Brazil  
Antônio Carlos Bertachini, MDGEO Serviços de Hidrogeologia Ltda., Brazil  
Antônio Carlos Girodo, Mineralium Deposita, Brazil  
Danilo Carvalho de Almeida, MDGEO Serviços de Hidrogeologia Ltda., Brazil

Hydrogeology of the Proposed Crown Jewel Open Pit Gold Mine, Okanogan County, Washington, USA  
David Banton, Golder Associates Inc., USA  
Mark Birch, Golder Associates Inc., USA  
Jeff White, Battle Mountain Gold, USA

Underground Waste Repositories in Exhausted Coal Mines a Review  
Edson Wendland, CEPETRO, DEP, UNICAMP, Brazil  
Thomas Himmelsbach, BGR, Germany

SESSION: MINE WATER TREATMENT

Mining Waters Treatment at Pin Lin Project in Taiwan  
Yuriy N. Spychak, Spetstamponazgeologia (STG), Taiwan  
Yang Pinjeng, Diffisoil Geotechnical Engineering Inc., Taiwan

Passive Treatment of European Mine Waters: The European Commission's 'Piramid' Project
Objectives and Aims

Objectives

- Increased protection of the environment against the impact of mine drainage and related activities
- Improved utilisation of mine waters
- Improved technology and economy of mine drainage operations
- Improved exploitation of mineral deposits consistent with the desirable standards of safety against water hazards

Aims

- To promote the development of science and technology concerned with water in mining
- To promote, develop and co-ordinate co-operation among persons and organisations of different countries, engaged in scientific or engineering work in the field of mine water problems and related sciences
- To encourage and facilitate research, education and training related to all scientific and practical problems of water in mining and allied operations
- To promote implementation of improved technology to mine drainage practice
IMWA – What for and for what?

The International Mine Water Association (IMWA) is a multidisciplinary expert organisation which links up experts of various branches of natural sciences and technology. IMWA was founded 1979 in Granada/Spain as a result of interest shown in the increasing problems associated with water in the mining industry at the “First International Mine Drainage Symposium”. Since then we have organised a congress every three years. IMWA also holds annual symposia and workshops on topical subjects which have included: Hydrogeology of Coal Basins; Mine Water and Pumping; Acid Mine Water; First African Mine Water Symposium; Water Resources at Risk; Engineering in Karst; Mine Water and Environment.

Membership of IMWA is open to everyone with an interest in mine water and we also distribute to members a quarterly journal of “Mine Water and the Environment” for which relevant papers are invited for publication.

Concerning mining, mine water, and the environment, there are still many open issues. If this is true on the theoretical level, it is even more true on the performance level. Precisely due to these facts an international debate and exchange of expertise and of ideas is worth its effort. Dear professional and expert, do not hesitate to take an active part at this debate. With a membership IMWA is offering you the opportunity to do so. You are most warmly invited to contribute and to profit from it as much as you can.

Clicando em Executive Council of IMWA

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