Mine Water and the Environment (2001) 20: 98–100 © IMWA Springer-Verlag 2001

Mine Water Notes

A Word from the Mine Water Notes Editor

Vladimir STRASKRABA, for many years, produced a very informative newsletter and it was also his idea, to include this newsletter in our new journal as „Mine Water Notes". Our association owes him a lot of thanks for his efforts to spread this newsletter under all the IMWA members for so many years. I would have liked him to take over an active part in collecting mine water related news – his sudden death made this wish impossible.

During our Brazilian symposium, three serious mining accidents happened in China (see note "Chinese government wants to improve safety in mines"), Slovenia, and Columbia, leaving at least 55 miners death. These accidents, by which 2 were caused by mine water inrushes, show, that IMWA, even after 20 years of its existence, is a far long way away from reaching its goal to provide everybody in the world the knowledge for save mining conditions under wet conditions. As Cases like that are happening nearly weekly, this must be an appeal for all technicians, miners, and scientists in the world – especially IMWA members – to spread out our knowledge about safety precautions, grouting techniques, mine water tracing and prediction of mine water inrushes.

Chris Wolkersdorfer, Freiberg/Saxony

Book announcement: "Prediction of Water Quality at Surface Coal Mines"

An ADTI Manual entitled "Prediction of Water Quality at Surface Coal Mines" has recently been completed and is now available for free. ADTI is a joint industry government group that is attempting to develop and foster the use of the best science and best available technology to the problems of acid mine drainage. The book has over 20 authors and was compiled and edited by Bob Kleinmann. It summarizes the procedures now being used to predict water quality and issue mine permits in the eastern United States, where post-reclamation water quality is a major issue, and also discusses new procedures and technology that are improving the state of the art. To get a hard copy, send a request by e-mail (adti@nrcce.wvu.edu) or read it on the web (www.nrcce.wvu.edu/nmlrc). However, before you simply download it, you should be aware that it is 241 pages long!

A similar book is being prepared by different ADTI authors for hard rock applications and should be available sometime in 2002.

Obituary Note: Manuel Aguilar Campos

At the beginning of this year, Manuel AGUILAR CAMPOS, who has played a major and difficult role in documenting publicly the Aznalcóllar contamination event died. Manuel AGUILAR CAMPOS was employed as an engineer by Boliden for 19 years until 1995 when he had to leave the firm. The reason was, that he brought to the public attention the potential dangerous situation of a potential dam failure at the Los Frailes tailing ponds with the results that we today know. Pablo ARAMBARRI and two other Spanish scientists warned in a scientific publication in 1996 also, that the residues from the old mine tailings pond site were already leaking into the river. As a result of this, in 1995 he had to leave Boliden and suffered then himself and his family lots of illegal and anonymous actions (e.g. insults, car and house breaking, violences to him and family members). The day he got to know the result of the court case which decided that Boliden was proven not to be responsible of the social and environmental damages of the April 26, 1998, dam failure, he got an heart attack. His birth town Puente Genil (near Córduba) is now giving him a post mortem recognition. Mr. AGUILAR was a rare and honest person.

IMWA (different sources)

Chinese government wants to improve safety in mines

After more than 500 dead persons in Chinese mining accidents during the last six weeks the, government has ordered severer safety precautions in mines. The state media held responsible a rest of the coal market for the accidents on Wednesday. One said, the mines would have raised their production, but disregarded safety regulations.

The newspaper "Beijing Ribao" reported, that state mines would have leased smaller shafts to several companies in spite of a prohibition. The "Fazhi Ribao" described the situation as very serious. From the 1st of April to the 16th of May 62 accidents happened in Chinese mines with altogether 503 miners killed. Most accidents are due to gas explosions and occurred in small mines. "Fazhi Ribao" reported, the government has instructed all state mines to immediately stop the production in small shafts and to close them till the end of June. Last year, in Chinese mines more than 4.800 workers were killed by mining accidents.

May 23rd 20001, Peking (AP)

IMWA Symposium Belo Horizonte, Brazil

Brazil belongs to the most important mining countries in the world with a Gross Domestic Product of 8.3 % in 1999. Therefore, from April 24th to April 27th, the International Mine Water Association IMWA held its 2001 symposium in this still growing market. Coming from 12 countries, 130 participants, there under 101 Brazilian colleagues, took part in this symposium, that was held simultaneously with IBRAM's 9th Brazilian Mining Congress. 18 papers were presented and 5 lectures given. In three sessions, covering "Mine Water Hydrology", "Acid Rock Drainage" and "Mine Water Treatment", current scientific and technical findings were presented in throughout excellent presentations, of which the best will be published in "Mine Water and the Environment" (ISSN 1025-9112). An excellent opportunity to spread out the knowledge gathered under the IMWA members, were the five lectures given, covering a broad field of mine water related subjects. Rafael FERNÁNDEZ-RUBIO (Spain) gave a lecture about "Environmental Impact Assessment Applied for Mining Projects", where he presented his outstanding experiences on the Aznalcóllar (Spain) case. "Uranium Mining and Rehabilitation in Germany" was a subject, presented by Broder MERKEL (Germany), who holds an active part in advising the Saxonian Authorities. Adrian BROWN (USA) covered the broad field of "Underground Mine Sealing, Post Mine Closure and Environmental Control" that focused on methods previously incorporated in abandoned and active mines. A very close subject is "Mine Dewatering", where Peet NEL (South Africa) and Colin DUDGEON (Australia) described interesting case studies in Zambia and Australia. Finishing the lectures, Paul YOUNGER (GB) and Robert KLEINMANN (USA) gave "An Overview of Acid Drainage Treatment" discussing the pros and conts of different active and passive treatment methods.

The meeting closed with an open and fruitful discussion on how the problems associated with mining and mine water can be solved and minimised in active and past mining operations. Debaters were Caio MÁRCIO ROCHA (State Environmental Agency, Brazil), Willer HUDSON PÓS (Instituto Mineiro de Gestão das Águas, Brazil), Paulo FRANCA (Minerações Brasileiras Reunidas, Brazil), Robert KLEINMANN (US Department of Energy, USA), Adrian BROWN (Adrian Brown Consultants, USA), Miran VESELIČ (IRGO, Slovenia), who in an open discussion covered all aspects associated with current mining operations including legal and environmental aspects.

IMWA's President Peet Nel (right) and General Secretary Christian Wolkersdorfer presenting the new IMWA journal.

After the meeting, an excursion to some of the most important mining sites in the Iron Quadrangle had been organized by Carlos Bertaccini (MDGEO - Serviços de Hidrogelogia Lda). A visit to the former state capital of Minas Gerais, Ouro Prêto and its fascinating Mining Museum closed the filed trip.

Part of the delegates and the IMWA EC in front of Ouro Prêto Mining Museum.

The next IMWA symposium will be held in Freiberg/Germany in September 2002.

Chris Wolkersdorfer, Freiberg/Saxony

New Members

The International Mine Water Association welcomes the following new members. Including the colleagues listed below, we now have 263 individual and corporate members.

Prof John G. Annandale South Africa
Mr Danilo Carvalho de Almeida Brazil
Mr Jean Chaboteaux Belgium
Dr Michael Dobr Canada
Mrs Juli Elders Australia
Mr Agostinho Fernandes Sobreiro Brazil
Mr Nuria Fernandez Castro Brazil
Mr Jose Baldoni Gomez Cleber Brazil
Mr Cesar Augusto Paulino Grandchamp Brazil
Dr Adam P. Jarvis United Kingdom
Dr Stefan Kaden Germany
Mr Victor Eduardo Medina Rojas Perú
Prof Broder Merkel Germany
Dr Robert W. Nairn USA
Mr Jorge Nicolan Chili
Mr Marek Pozzi Poland
Mr Leandro Quadros Amorim Brazil
Mr Nathan Siria USA
Mr Richard Spotts USA
Mr Marcelo Taylor de Lima Brazil
Dr Anne Wagner USA

We hope that our new colleagues will benefit from and contribute to the extensive mine water knowledge and expertise gathered within our group of international experts.

Within the next week all IMWA members will receive letters with their membership status and data we have in our database, including your postal and email addresses. The mailing will also include an invoice (or receipt for current members) for 2001—2002 membership dues, which will ensure continued membership and receipt of the IMWA Journal of Mine Water and the Environment. Prompt payment is appreciated, and can be made by Visa, MasterCard, or by International Draft.

Adrian Brown, Treasurer, Denver, Colorado, USA

Software: Ground Water Model Review

In a recent model review, DHI's integrated groundwater and surface water simulation system MIKE SHE was selected as the best tool to model groundwater-surface water related issues. The intercomparison was carried out in connection with a controversial study for the Rocky Flats Environmental Technological Site, Denver, Colorado. MIKE SHE was preferred among 9 integrated hydrological models (mainly based on MODFLOW extensions). Only integrated, deterministic, distributed, physically based, integrated, continuous simulation models were considered. This meant that the basic MODFLOW groundwater model was not considered, but a number of MODFLOW based integrated models were reviewed among a total of nine models. The main reasons for this was their inability to describe all processes in an integrated and physically based manner. A comprehensive matrix of model selection criteria was established based on general model requirements. Based on this MIKE SHE was ranked 1st with a total score of 92% and second was SWMM developed at USEPA with a total score of 68%. The model code selection report can be downloaded from http://www.dhisoftware.com and more information about the Rocky Flats Environmental Technological Site can be found on http://www.rfets.gov.

from: Jan van de Kraats, European Water Management

Forthcoming Events

11th — 13th September 2001, Ashurst, UK

River Basin Management 2001; First International Conference on all aspects of Hydrology, Ecology, Environmental Management of Rivers, Flood Plains and Wetlands; e-mail: shanley@wessex.ac.uk; http://www.wessex.ac.uk/conferences/2001/river01/

5th November — 9th November 2001, Ouro Prêto

Short Course: "From Groundwater to Mine Water – Environmental Hydrogeology in Mining"; e-mail: shortcourse@imwa.de; http://www.imwa.de

4th — 7th March 2002, Bremen, Germany

GeoProc2002 – Geochemical Processes, Topics: inorganic contaminants, kinetics and transport, conceptual models & modelling, upscaling of processes, natural attenuation, acid mine drainage, risk assessment; e-mail: hdschulz@uni-bremen.de; http://www.geochemie.uni-bremen.de

16th — 20th September 2002, Freiberg, Germany

Uranium Mining & Hydrogeology III including the International Mine Water Association Symposium; e-mail: umh@imwa.de; http://www.imwa.de

15th — 19th September 2003, Ljubljana, Slovenia

IAH conference: Groundwater in Geological Engineering; e-mail: miran.veselic@i-rgo.si