

APPROVED ARTICLES

Sustainability – Environmental Design

Practical Applications of Environmental Ore Deposit Models in Mine Development with a Sedex Example

John Kwong, CANMET Mining and Mineral Science Laboratory, Canada

The Environmental Variable in the Mining Industry

Jorge Troncoso, SKM Minmetal, Chile

Environmental Design Criteria: An Increasingly Required Engineering Deliverable

Jorge Arruete, Hatch Environmental and Community Interface, Chile

Stable, Inert and Contained: Mine Waste Disposal and the Sustainable Development Agenda

Daniel Franks, Centre for Social Responsibility in Mining, Sustainable Minerals Institute, The University of Queensland, Australia; David Boger, The University of Melbourne, Australia; Claire Cote, Centre for Water in the Minerals Industry, Sustainable Minerals Institute, The University of Queensland, Australia; and David Mulligan, Centre for Mined Land Rehabilitation, Sustainable Minerals Institute, The University of Queensland, Australia

GolderSet©: Application of a Sustainability Decision Support Tool to the Mining Industry

Benoit Bourque, Robert Noël-de-Tilly and Pierre Groleau, Golder Associates, Canada

Environmental Bonding in Mining – Comparative Analysis of Regulatory Requirements

Richard Poulin and Michel Jacques, Université Laval, Canada

Mining and Biodiversity: San Guillermo Biosphere Reserve Management Plan, San Juan, Argentina

Carlos Pujadas, Andrés Abelin, Javier Cerino, Emilio Póslleman, Isabel Rueda and María B. Vera, Institute for Sustainable Development, Universidad Católica de Cuyo, Argentina

Codelco's First Corporate Mine Closure Plan: Sharing Lessons Learned

Eduardo Sanzana and Francisca Domínguez, Codelco, Chile; Patricio Oyanander, Codelco El Teniente, Chile; and Ernesto Ortiz, Codelco Salvador, Chile

Risk Assessment

Environmental Impact and Toxicology of Sulphate

Patricio Moreno, Universidad Diego Portales, Chile; Hal Aral and Angelica Vecchio-Sadus, CSIRO Minerals, Australia

Identification of Environmental and Safety Risks, and Alternatives for Remediation of "Las Cascadas" Plant, Salvador Division's Old Mining Facilities. A Collaboration Agreement between CODELCO and SERNAGEOMIN

Cecilia Adasme, SERNAGEOMIN; Ernesto Ortiz, Codelco Salvador, Chile

Statistical Techniques for Differentiating Sources of Arsenic at a Former Iron Mine, USA

Julie Sueker and Gregory Albright, Arcadis, Inc, USA; Brian Bussa, Ford Motor Company, USA; Raul Víctor, Arcadis Geotécnica, Chile

The Human and Ecological Risk Assessment Process as a Decision-Making Tool for Mining Sites

Anne Thatcher and Margaret Bartee, Arcadis Inc, USA; Alexandra Belaunde, Esteban Briones and May-Lin Almendras, Arcadis, Chile; Claudia Arancibia and Ernesto Ortiz, Codelco Salvador, Chile

Heavy Metals Bioavailability and Separation in the San Pedro River Located in a Semi-Arid Region of the Northwest of Mexico

Agustin Gómez, Jesus Valenzuela, Salvador Aguayo, Javier Almendariz and Diana Meza, University of Sonora, Mexico; Jose Parga, Saltillo Institute of Technology, Mexico

Impact Assessment and Control**PDAC's e3 Plus Framework for Responsible Exploration Adopts Holistic Approach**

Bernarda Elizalde, Tony Andrews and Brenda Daglish, Prospectors and Developers Association of Canada (PDAC), Canada

Dust Management – An Integrated Approach for the 21st Century

Jon Harper, SKM, Australia

Air Quality Modelling at Cerrejón Coal

Sergio Petro, Carbones del Cerrejon, Colombia

Two Major Minesites to Compare the Performance of the Non-Traditional Dust Suppressant to a Water Only Program

James Stewart, Asarco Mine, USA; Juan Schmitt, Unico System, Chile; Lynn Edwards, Midwest Industrial Supply Inc, USA

Eco-Friendly Conveyor Belts

Bernd Kusel, Phoenix Conveyor Belt Systems, Germany; Martin Schafer, Tecnologias en Transporte de Minerales, Chile

Helping to Preserve the Quality of Life in Mining Communities

James Humphrey, Alfred Abraham and Kris Seitz, Caterpillar Global Mining Division, USA; Sebastian Dibarrat, Caterpillar Global Mining, Chile.

The Chilean Copper Mining Sector: Energy Consumption and Greenhouse Gas Emissions Profile (2001 – 2007)

Sara Pimentel, Cochilco, Chile

Integrated Odour Control and Management Plan in Molybdenum Plant

Marco Ramirez, Doña Inés de Collahuasi Mining Company, Chile; Vania Zorich, The Synergy Group, Chile

Bayovar Project: First Non-Metallic Mining Project EIA for Phosphate Recovery in South America

Martha Ly, Aldo León and Jorge Chávez, Golder Associates, Peru; Jose Luis Vega, Compañía Minera Miski Mayo, Peru

The Flotation Behaviour of Arsenic-Bearing Minerals in Nickel Sulphide Flotation Systems

Leanne Smith, Warren Bruckard and Kevin Davey, CSIRO Minerals, Australia

Urban Artisanal Gold Shops and Mercury Emissions Control in Andacollo, Northern Chile

Paul Cordy and Marcello Veiga, University of British Columbia, Canada; Daniel Moraga, Universidad Católica del Norte, Chile; Daniel Stapper and Kevin Telmer, University of Victoria, Canada

The Development of a Diagnostic Protocol for the Assessment and Testing of Sulphide Tailings in Relation to Future Sustainable Tailings Management

David McCallum and Warren Bruckard, CSIRO Minerals, Australia

Mineralogical Characterisation Techniques for Predicting Acid Rock Drainage

Anita Parbhakar, University of Tasmania, Australia; Mansour Edraki, Centre for Mined Land Rehabilitation, Sustainable Minerals Institute, The University of Queensland, Australia; Dee Bradshaw and Stephen Walters, Julius Kruttschnitt Mineral Research Centre, Sustainable Minerals Institute, University of Queensland, Australia

Sustainable Water Management

Addressing the Potential Effects of Mine Dewatering on Terrestrial Groundwater Dependent Ecosystems – Pilbara Region, Western Australia

Paul Howe and Jodie Pritchard, SKM, Australia; Jenny Carter, ENSIS CSIRO, Australia; Chris New, Rio Tinto Iron Ore, Australia

How to Meet the Challenge of Tailings Filtration

Rainer Raberger and Gernot Krammer Andriz, Austria

Addressing Uncertainties in Water Quality Modelling for Environmental Impact Assessment

Nicolas Lauzon and Ian Mackenzie, Golder Associates, Canada

Pit Lake Modelling for the Athabasca Oil Sands Region, Alberta, Canada

Nicolas Lauzon, Jerry Vandenberg and Ian Mackenzie, Golder Associates, Canada

Achieving Corporate Sustainability Outcomes within a Mining EIA Framework

Hjalmar Philipp and David Welsh, SKM, Australia

Hydrogeochemical Evolution of an Uncapped Gold Tailings Storage Facility

Mansour Edraki, Warwick Fegan, Thomas Baumgartl, Andrew Fletcher and David Mulligan, Centre for Mined Land Rehabilitation, Sustainable Minerals Institute, The University of Queensland, Australia; Ali Munawar, Gadjah Mada University, Indonesia

Tools to Calculate Groundwater Inflow to Underground Mines – A Comparative Assessment

Jan Van Hooydonck, Artois Consulting, Chile; Mauro Prado and Nilson Guiguer, Schlumberger Water Services, Brazil; Cristian Bittencourt, Votorantim Metais, Brazil

Best Practices and Efficient Use of Water in the Chilean Mining Industry

Rosanna Brantes, Cochilco, Chile

Drainage of Tailings Dam by Using Geocomposite Macdrain

Juan Carlos Rivera, Mario Balbin and Alfredo Mansen, Maccaferri del Peru

Automatic Irrigation System at Jachucoposa Spring for the Mitigation of Impacts Due to Water Extraction

Oscar Zepeda, Doña Inés de Collahuasi Mining Company, Chile; Jack Stern, Jack Stern & Cia Ltda., Chile; Tomás Rioseca, Centro de Ecología Aplicada, Chile

Predicting Infiltration in Arid Environments

Bjorn Weeks, Golder Associates, Chile; Fernando Junqueira, Golder Associates, Canada; G. Ward Wilson, University of British Columbia, Canada

The Tensor Function of the Hydraulic Conductivity – A Beneficial Possibility to Predict Water Fluxes and Mass Transport in Waste Deposit Capping Systems

Rainer Horn, Christian Albrechts University Zu Kiel, Germany; Thomas Baumgartl and David Mulligan, Centre for Mined Land Rehabilitation, SMI – The University of Queensland, Australia; Jose Doerner, Universidad Austral de Chile

Groundwater Remediation Programme – La Coipa Groundwater System, Mantos de Oro, III Region, Northern Chile

Erling Villalobos, Mantos de Oro Mining Company, Chile; Rowan McKittrick, Water Management Consultants, Chile

Development of a Conceptual Hydrogeological Model of South Australia's Stuart Shelf

Blair Douglas, Olympic Dam BHP Billiton, Australia; Paul Howe, SKM, Australia

Veladero: High Andean Vegas Management

José Luis Fornes, Barrick, Argentina

Modelling and Evaluation of Local Groundwater Quality Adjacent to a Weathering Porphyry Copper System, USA

Edward González, Sarbconsbol, Bolivia; Ingar Walter, Kjeoy Research and Education Center, Norway

Effluent Treatment**Sulphuric Acid Recovery from Aqueous Waste Streams**

Hal Aral, CSIRO Minerals, Australia. Jianhua Zhang, Stephen R. Gray and Marlene Cran, Victoria University, Australia

Acid Drainage Decontamination, The Andina Division's Case

Eduardo Astorga, Andina Division Codelco, Chile

Clean Oxidants for Effluent Treatment in the Andean Mining Industry

Luiz Teixeira, Catholic University of Rio de Janeiro, Brazil; Cristian Marquez, Innova Andina; Ulisses da Silva, Solvay, Brazil; Oscar Hernandez, Sun S.A., Brazil

Treatment of Effluents Containing Cyanides - How to Choose amongst Hydrogen Peroxide, Metabisulphite + Air, or Caro's Acid

Luiz Teixeira, Catholic University of Rio de Janeiro, Brazil; Cristian Marquez, Innova Andina; Ulisses da Silva, Solvay, Brazil

Zeotreat: Multifunctional Adsorbents for Metal and Sulphate Removal in Mining Wastewaters

Cecilia Vidal, Ulrike Broschek, Luis Bravo and Gilda Zuñiga, Fundación Chile

Green Technologies for Sulphate and Metal Removal in Mining and Metallurgical Effluents

Oscar Lopez, Bioteq Water, Chile; Mike Bratty, David Sanguinetti and David Kratovchil, Bioteq Environmental Technologies, Canada

Sulphate Removal from Mining Effluents: An Overview of Current Developments in the Southern Hemisphere

Raymond Philippe, Hatch, Chile; Deon Nel, Hatch, South Africa; Trevor Clarke, Hatch, Australia

A Pilot Case Study for Passive Water Treatment at the El Indio Mine, Chile

Guillermo Aguirre, Golder Associates, Chile; Marcelo Robledo, Barrick, Chile

A Review of Acid Rock Drainage Sulphate Treatment Methods

Jason Rushing, John Koon and Dennis Tucker, Malcolm Pirnie Inc., USA

Remediation – Rehabilitation

Options for Management and Closure of Large Tailings Dams

Trina Jensen, Jodie Pritchard and David Welsh, SKM, Australia

Rehabilitation Options for Soils Affected by Oilfield Brine in an Arid Landscape

Andrew Fletcher, Thomas Baumgartl, Mansour Edraki, Rachel Kirchner and David Mulligan, Centre for Mined Land Rehabilitation, The University of Queensland, Australia; Nick Dunstan, Beach Petroleum Ltd., Australia

Functions of Designed Cover Systems in Semi-Arid Environments of Australia

Thomas Baumgartl, Anne Schneider, David Doley and David Mulligan, Centre for Mined Land Rehabilitation, The University of Queensland, Australia

East Waste Rock Facility Test Panel Cover System Monitoring

Edwin Zegarra, Barrick Misquichilca, Peru

Classification of Environmental Factors for Mine Closure Design in Russia

Serguei Reshetnyak and Yulia Fedotova, Mining Institute - Kola Science Center, Russian Academy of Sciences; V Doroshenko, SPB Giprosht, Russia

Social Issues

Avoiding Mine-Community Conflict: From Landscape Domination to Landscape Attachment

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Complexness of the Assessment and Management Process of Socio-Environmental Impact in Chile

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