



# Mine Water Solutions 2018

	<b>Tuesday June 12, 2018</b>	
Location:	<b>Life Sciences Centre, Room 1001</b>	
17:30 - 18:30	Introduction and Welcoming - Dirk Van Zyl, Organizing Chair, UBC	
	Welcoming: Dan Ramey, Freeport McMoRan Inc.	
	<b>Resilience of Mine Water Solutions and the Origin and Significance of the Conference Series</b> ; Andy Robertson, Robertson Geoconsultants	
	Opening Keynote - <b>People, Policy and Water</b> Luke Danielson, Sustainable Development Strategies Group	
18:00 - 20:00	Exhibit Hours, Life Sciences Centre, West Atrium	
18:30 - 20:00	Exhibit Hall Welcome Reception, Life Sciences Centre, West Atrium	
	<b>Wednesday, June 13, 2018</b>	
07:00 - 09:00	Registration and Light Breakfast, Life Sciences Centre, West Atrium	
08:00 - 08:30	Speakers Coffee Meeting, Life Sciences Centre, West Atrium	
09:00 - 17:00	Exhibit Hours, Life Sciences Centre, West Atrium	
	Safety Share	
Location:	<b>Life Sciences Centre, Room 1001</b>	
09:00 - 10:15	Welcome from Councillor Morgan Guerin, xʷməθkʷəy̓əm, Musqueam Nation	
	Welcome from UBC	
	Keynote - <b>Opportunities at the Confluences Between Technological Innovation, Society, and the Environment</b> , Dan Ramey, Freeport McMoRan Inc.	
10:15 - 10:45	<b>Refreshment Break - sponsored by Knight Piesold</b>	
10:45 - 12:25	<b>SESSION 1 - Water as a Valued Asset</b> Chair: Briana Gunn, Newmont	<b>SESSION 2 - Water Treatment (1)</b> Chair: Robert Kimball, Wood
	Location: <b>Life Sciences Centre, Room 1001</b>	<b>CHBE Building, Room 101</b>
	Follow The Money (And The Water) – The Goldcorp Water Valuation Toolbox - Brendan O'Brien, Goldcorp, Inc. USA	Removing Selenium from very low concentration mine waters - Mohsen Barkh, SGS Canada
	A new approach to mitigation banking - Eric McCleary, Stantec USA	Synthetic Water Calibration for Water Quality Parameters & Water Treatment Program Validation - Cecilia Garcia Marra, McCue Engineering, Canada
	Mine Water. A resource for the circular economy in South African Mining communities - Dheepak Maharajh, Mintek, South Africa	Water Use, Quality and treatment at Syncrude's Mineable Oilsands Operation in Northern Alberta - Warren Zubot, Syncrude Canada

	'Don't make waves': desalinated water and the social licence to operate in the Atacama Region, Chile - Cecilia Campero, UBC	Bioremediation-Based Water Treatment for Mine Closure: A Pilot-Scale Study - Leonard Santisteban, Freeport-McMoRan, USA	
	From water management to water stewardship in mining regions - Nadja Kunz, UBC	The development of a new peat-based weak anion exchange material that removes sulfate from acidic water - Igor Kolomitsyn, Natural Resources Research Institute, USA	
12:25 – 13:30	<b>Lunch - sponsored by Eco Mister Evaporator</b> Life Sciences Centre, West Atrium		
13:30 -15:10	<b>PANEL: Innovative Approaches to Mine Water Recovery and Reuse</b> Andrew Watson, Stantec		Chair:
Location:	<b>Life Sciences Centre, Room 1001</b>		
	Getting to good enough: fit for reuse water upscaling (a strategy presentation) - Andrew Watson, Stantec Advances in solid-liquid separation - Christian Kujawa, Paterson and Cooke Breakthroughs in value recovery from mine water streams - Brett Waterman, Freeport McMoRan Innovative sulfate removal - Ron Davis, Ecolab		
15:10 - 15:40	<b>Refreshment Break, Life Sciences Centre, West Atrium</b>		
15:40 - 17:40	<b>Session 3 - Water Treatment (2)</b> Chair: Brett Waterman, Freeport McMoRan Inc.	<b>Session 4 - Characterization and Prediction (1)</b> Chair: Erick Weiland, Freeport McMoRan Inc.	<b>Session 5 - Operational Water Management</b> Chair: Mike Geddis, KGHM
Location:	<b>Life Sciences Centre, Room 1001</b>	<b>CHBE Building, Room 101</b>	<b>CHBE Building, Room 102</b>
	Alkaline Flush Technology: an In Situ Treatment Method for Mining Impacted Alluvial Aquifers - Olufunsho Ogungbade, Freeport-McMoRan, USA	Characterising the Geochemistry of Soil and Water Using Drone based Hyperspectral Analysis - Jamie Robinson, SLR Consulting, UK	Is water the best option? How to evaluate which fugitive-dust management practice is right for your site - Jeff Ladderud, Freeport McMoRan, USA
	Performance Review of a Passive Treatment System for Fe, As, Mn at the Empire Mine State Historic Park - Neal Gallagher, Golder Associates, USA	Approaches to Water Quality Modeling Using Geochemical/ARD Test Data in Conjunction with Field Analog Data - Madhumitha Raghav, Freeport McMoRan USA	Estimating the Wetting Time for Mine Waste Rock Piles - Mark Steinepreis, Stantec Canada
	Electrocoagulation (EC) for the Removal of Silica in RO Rejects from ARD Water Treatment - Zhong Xie, National Research Council, Canada	Predicted (post-closure) Contaminant Loads and Water Quality Conditions in Myra Creek, Nystra Myra Falls (Canada) - Alex Trapp, Robertson GeoConsultants Inc., Canada	3D Deposition and water balance modelling with Muk3D and GoldSim - Carlo Cooper, MineBridge Software, Canada
	New Zero Water Intake Technology for Chemical Treatment of Mining Tailings - Colin Klein, SNF Canada	The Role of Speciation for Selenium Treatment and Compliance with Site-Specific Aquatic Life Criteria - Ben Wozniak, Brooks Applied Labs, USA	Dust Mitigation using a Water Conservation Program - Steven Clark, Enviro Tech Services, USA
	Containerized Water Treatment for Remote Mine Sites - Veneil Sundar, BQE Water, Canada	Base Mine Lake: The first End-Pit Lake for the Alberta Oil Sands - Dallas Heisler, Syncrude Canada	Biochemical cyanide treatment of gold mine tailings supernatant: Pilot and demonstration trials - James Harrington, Alexco Environmental Group
	In-Situ Treatment of Arsenic in a Pit Lake – Case History - Tom Patterson, SLR International, USA	Estimating Operational Groundwater Inflows to a Proposed Underground Coal Mine on Vancouver Island - Laura-Lee Findlater, Lorax Environmental Services, Canada	A Real Challenge in Mine Water Management in High Precipitation Area, Grasberg Mine - Vladimir Ugorets, SRK Consulting, USA
18:00 - 21:00	<b>Night at the Museum of Anthropology - Sponsored by Goldcorp</b>		
	<b>Thursday, June 14, 2018</b>		
07:00 - 09:00	Registration and Light Breakfast, Life Sciences Centre, West Atrium		

08:00 - 08:30	Speakers Coffee Meeting, Life Sciences Centre, West Atrium		
09:00 - 17:00	Exhibit Hours, Life Sciences Centre, West Atrium		
08:45 - 10:00	<b>Introductions and Safety Share, Dan Ramey, Freeport McMoRan</b>		
Location:	<b>Life Sciences Centre, Room 1001</b>		
	Keynote: <i>Goldcorp's Towards Zero Water (H2Zero) Goal</i> - David Garofalo, CEO, Goldcorp		
	Keynote: <i>Cerro Blanco Underground Mine: 100+ ° C Water - Taking Challenges from Risks to Opportunities to Reality</i> , Jeff Reinson, VP Project Development, Bluestone Resources		
10:00 - 10:20	Plenary: Current PMP Estimation and Meteorological Parameter Development for Mining Facilities in Data Limited Regions - Bill Kappel, Applied Weather Associates, USA		
	Session Close, remarks and announcements		
10:20 - 10:50	<b>Refreshment Break, Life Sciences Centre, West Atrium</b>		
10:50 - 12:30	<i>Social Aspects of Mine Water Management</i>		Moderator:
Location:	Luke Danielson, Sustainable Development Strategies Group		
	<b>Life Sciences Centre, Room 1001</b>		
	Total Water Management: Canada's contribution to sustainable mine development - Jon Fennell, Integrated Sustainability Consultants, Canada		
	Planning the climate change adaptation practices in watershed ecosystems: What the mining sector is developing? - Gabriel		
	<b>PANEL DISCUSSION</b>		
	Nadja Kunz, Assistant Professor, UBC School of Public Policy and Global Affairs and Norman B. Keevil Institute of Mining Engineering		
	Andre Xavier, Project Manager, Canadian International Resources and Development Institute (CIRDI)		
	Lana Eagle, Lana Eagle - President - Industry Council for Aboriginal Business (ICAB)		
12:30 - 13:30	<b>Lunch. Life Sciences Centre, West Atrium</b>		
13:30 - 15:10	<b>Session 6 - Case Studies (1)</b> Hamish Weatherly, BGC Engineering	Chair: <b>Session 7 - Characterization and Prediction (2)</b> Chair: Shannon Shaw, pHase Geochemistry	<b>Session 8 - Water Management in Extreme Climates</b> Chair: Jennie Gjertsen, Goldcorp
Location:	<b>Life Sciences Centre, Room 1001</b>	<b>CHBE Building, Room 101</b>	<b>CHBE Building, Room 102</b>
	Challenges in containing geochemical risk at the Faro Mine Complex, Yukon - Dustin K. Rainey, Yukon Government, Canada	Use of Adaptive Management Planning in Support of Environmental Monitoring and Permitting Process, Sheldon Smith, Stantec	Incorporating Climate Variability into Water Balance Modelling to Help Inform Water Management Design: The Pebble Mine - Alana Shewan, Knight Piesold, Canada
	Lime Treatment: Advantages of a Proven Technology and Competing Alternatives - Kristina Minchow, Golder Associates, USA	Meteorological time series and natural runoff model in a cold climate environment - Joel W. Trubilowicz, Northwest Hydraulic Consultants, Canada	Effect of Variability of Design Storms on the Galore Creek Project - Charles Masala, Klohn Crippen Berger, Canada
	Hurricane Harvey Rainfall, Did It Exceed PMP and What are the Implications - Bill Kappel, Applied Weather Associates, USA	A New Rapid Brine Release Extraction Method in Support of Lithium Brine Resource Estimation - Jason Keller, GeoSystems Analysis, USA	Hydrogeology of the Coffee Gold Project: groundwater interactions in an area of discontinuous permafrost - Laura-Lee Findlater, Lorax Environmental Services, Canada
	New tailings encapsulation methods could "pave" the way toward safe long-term stacking of filtered tailings - Donald J. Lake, Terra CO2 Technologies, Canada	A comparison of predicted groundwater impacts to observed effects at the Victor Diamond Mine, 11 years after the start of dewatering - Simon Gautrey, Amec Foster Wheeler (Wood Plc),	Numerical Groundwater Flow and Thermal Transport Modeling in Cold Regions - Mundzir Basri, Stantec Canada
	Enhanced Reclamation of the Giant Nickel Tailings Storage Facilities in British Columbia, Canada - Allison Brown, Barrick Gold, Canada	Multi-Parameter Time-Lapse Dam Seepage Investigation - Thomas C. Goode, Stantec USA	Changing Effluent Regulations in Canada, Helping Mine Sites to Reach New Limits - Sean Miller, Maxxam Analytics, Canada

15:10 - 15:30	<b>Refreshment Break</b>	
15:30 - 17:00	<b>Session 9 - Characterization and Prediction (3)</b> Chair: Madhumitha Raghav, Freeport McMoRan Inc.	<b>Session 10 - Case Studies (2)</b> Alana Shewan, Knight Piesold <span style="float: right;">Chair:</span>
Location:	<b>Life Sciences Centre, Room 1001</b>	<b>CHBE Building, Room 101</b>
	Richmond Hill Mine Heap Leach Pad Soil Cover System Evaluation -Johnny Zhan, Barrick Gold, USA	Application of SAGR Bioreactors for Ammonia Treatment in Mining Effluents - Mike Bratty, Golder Associates, Canada
	Dependence of Predicted Dewatering on Size of Hydraulic Stress Used for Groundwater Model Calibration - Cristian Pereira, SRK Consulting, USA	Towards a Conservative Mine Design Practice through Probabilistic Calibration - John Mayer, SRK Consulting, Canada
	Novel Use of the Westbay System to Characterize Deep Hydrogeology for a Proposed Underground Coal Mine - Tyler Gale, ERM Consultants, Canada	Mixing Zone Assessment for Mine Effluent Discharges in Receiving Waters: Challenges and Solutions through Best Practices - Mijanur R. Chowdhury, Minnow Environmental,
	Groundwater Discharge Into Tailings Facility During Intense Precipitation Events, Nyrstar Myra Falls - Christoph Wels, Robertson GeoConsultants, Canada	Investigation of Feed Water Treatment Options in an Arid Area - Mohsen Barkh, SGS Canada
	Cold Desert Evapotranspiration Cover System Design Evaluation - Jason Keller, GeoSystems Analysis, USA	Implementing a Long-Term Water Management Strategy for Mine Closure in Northwest British Columbia - Michael Dabiri, Klohn Crippen Berger, Canada

**Schedule subject to change**  