






Preliminary Program*

Day One: Tuesday 4 October 2022

15th International Conference on Mine Closure

07:00	REGISTRATION		
08:00	Welcome to Country <i>D Sandy</i>		Technical Session Sponsor
08:10	Welcome and introduction <i>M Tibbett, Mine Closure 2022 Conference Co-Chair, University of Reading, UK</i>		
08:20	OPENING ADDRESS: <i>TBA</i>		
PLENARY SESSION ONE			
CHAIR	<i>TBA</i>		Technical Session Sponsor
08:30	KEYNOTE ADDRESS: Let's reimagine our legacy of mining <i>K Sommerville, BHP, USA</i>		
09:00	KEYNOTE ADDRESS: Cradle to cradle mining: a future concept for inherently reconstructive mine systems? <i>R Herrington, Natural History Museum, UK</i>		
09:30	Geomorphic landform design, landscape evolution modelling and geochemical stabilisation for mine closure at the LIFE RIBERMINE project, Spain and Portugal <i>JF Martin Duque, M Tejedor Palomino, Universidad Complutense de Madrid, Spain; G Hancock, The University of Newcastle, Australia; C Martin-Moreno, R Sanchez Donoso, Universidad Complutense de Madrid, Spain; J de la Villa Albares, Regional Government of Castile-La Mancha, Spain</i>		
10:00	MORNING BREAK		
PARALLEL SESSIONS			
SESSION ONE: LANDFORM DESIGN AND REHABILITATION (GEOMORPHIC LANDSCAPE AND DESIGN)		Technical Session Sponsor	SESSION TWO: STAKEHOLDER AND COMMUNITIES
CHAIR <i>TBA</i>			CHAIR <i>TBA</i>
10:30	Lady Rosie waste rock landform design <i>I Taylor, Okane Consultants, Australia; K Critchell, Westgold Resources, Australia; S Hill, Practical Mining Consultants, Australia; P Wheeler, Okane Consultants, Australia, presented by M O'Kane, Okane Consultants, Canada</i>		Holographic models of closure landscapes for stakeholder engagement: when you need more than words and pictures <i>KA Franklin, BGC Engineering Inc., Canada; CR MacInnis, Crown-Indigenous Relations and Northern Affairs, Canada; J Roca, BGC Engineering Inc., Canada; GR Magnusson, Clirio Inc., Canada; BTJ Burton, BGC Engineering Inc., Canada; RN Enos, BGC Engineering Inc., USA</i>
10:50	Understanding the limits of alluvial analogues: lessons from geomorphological design of mine rehabilitation in New South Wales, Australia <i>C Waygood, S Dressler, WSP Golder, Australia</i>		Cumulative impact assessment, Indigenous Peoples and the extractive sector: literature review and potential methods <i>SE Holcombe, The University of Queensland, Australia</i>
11:10	Toward integrated mining landform design: recent tailings project examples from Canada <i>RB Mooder, JTG McGreevy, BGC Engineering Inc., Canada</i>		Community capacity to envisage a post-mine future: rehabilitation options for the Latrobe Valley brown coal mines <i>JM Reeves, T Baumgartl, Federation University Australia, Australia; D Morgan, James Cook University, Australia; V Reimers, M Green, Federation University Australia, Australia</i>
11:30	Inspecting the functionality of geomorphic reclamation designs <i>N Bugosh, GeoFluv and Carlson Software, USA; R Eckels, Landforma, Australia</i>		Social aspects in the process of mine closure: evolution and avenues for future research agenda <i>J Demajorovic, Centro Universitário FEI, Brazil; A Xavier, Canadian Service Executive Organization, and The University of British Columbia, Canada; AAF Pimenta, RS Barreto, Centro Universitário da FEI, Brazil</i>
11:50	Assessing the stability of a geomorphically reconstructed post-mining landscape: a case study of the Santa Engracia mine, Spain <i>G Hancock, The University of Newcastle, Australia; JF Martin Duque, Geodynamics, Stratigraphy and Palaeontology, Spain</i>		Social license to operate through mine closure transition: lessons from theory and practice <i>C Wilson, P Mandke, L Harding, GHD Pty Ltd, Australia</i>
12:10	TBA		
12:15	LUNCH		
SESSION THREE: MINE CLOSURE PLANNING		Technical Session Sponsor	SESSION FOUR: DECOMMISSIONING AND WASTE MANAGEMENT
CHAIR <i>TBA</i>			CHAIR <i>TBA</i>
13:15	Mine closure plan for the Salkhit silver mine in Mongolia <i>M Poscente, MERIT, Canada; T Chojinzav, Ministry of Mining and Heavy Industry, Mongolia; B Chultemgombo, Erdenes Silver Resources LLC, Mongolia</i>		A risk-based framework for assessing non-metalliferous contamination prior to closure at MMG Rosebery Mine, Tasmania, Australia <i>J Sweeney, C O'Farrell, Tetra Tech Coffey Pty Ltd, Australia; J Crosbie, B Osgerby, MMG Limited, Australia</i>
13:35	Planning for mine closure: comparative mapping of the regulatory frameworks for mine closure planning in Western Australia, Queensland and Victoria <i>L Hamblin, A Gardner, The University of Western Australia, Australia</i>		The 5R model: facilitating decision-making on repurposing of industrial and ancillary infrastructure <i>SJ Finucane, JC King, KM Tarnow, CDM Smith, Australia</i>
13:55	Risk-based approach to mine closure planning and implementation: a case study of AngloGold Ashanti Ghana, Obuasi mine <i>NN Asante, A Arthur Jnr, E Frimpong-Boateng, AngloGold Ashanti Ghana Ltd, Ghana</i>		Evaluating the long-term behaviour and viability of an oil sands tailings management and reclamation strategy <i>HL Cossey, University of Alberta, Canada; H Kaminsky, Northern Alberta Institute of Technology, Canada; AC Ulrich, University of Alberta, Canada</i>
14:15	Transitioning from mine operations to closure: the dilemma of differing design acceptance criteria perspectives <i>TG Carter, WSP Golder, Canada; P de Graaf, De Beers Group, Anglo American, Australia; J Dixon, Fortescue Metals Group, Australia; A Creighton, Rio Tinto, Australia; R Macciotta, University of Alberta, Canada; F Silva-Tulla, Independent Consultant, USA; P Stacey, Stacey Mining Geotechnical Ltd., Canada</i>		Passive treatment of acid mine drainage with active geocomposites <i>G Martins, HUESKER Australia Pty Ltd, Australia; S Niewerth, HUESKER Synthetic GmbH, Germany; C Cheah, HUESKER Australia Pty Ltd, Australia</i>
14:35	Embedding climate change risk into mine closure planning: a case study of tailings closure design at Ballarat Gold Mine <i>L Trotta, T Ridgway, GHD Pty Ltd, Australia</i>		Development of mine-derived acid sulfate sediments <i>DE Windle, TR Weaver, G Race, ERM, Australia; M Iles, BMT, Australia; E Fagan, Energy Resources of Australia Ltd, Australia</i>
14:55	Navigating stakeholder engagement with regulatory bodies as part of the mine closure process <i>B Voges-Haug, D Dowdell, RPMGlobal, Australia</i>		Faro Mine, Yukon Territory, Canada: a case study for optimising zinc load capture by clean water diversion and focused contact water capture <i>BM Adams, KH Scully, JTC Seto, B Harrison, BGC Engineering Inc., Canada</i>
15:15	AFTERNOON BREAK		
SESSION FIVE: SITE REMEDIATION AND IMPACT MANAGEMENT (1)			SESSION SIX: PROJECT MANAGEMENT AND EXECUTION
CHAIR <i>TBA</i>			CHAIR <i>TBA</i>
15:45	Can <i>Pongamia pinnata</i> be an effective phytoremediation tool for copper tailings in the Copperbelt of Zambia? <i>E Degani, University of Reading, UK; B Warr, Phyla Earth, UK; M Tibbett, University of Reading, UK</i>		Advanced numerical modelling for closure work assistance <i>SH Lines, M Llano-Serna, Red Earth Engineering, Australia</i>
16:05	Construction of a passive sulfate treatment system <i>J Robinson, I Andrews, J Dodd, SLR Consulting Limited, UK, presented by M Thienenkep, SLR Consulting, Australia</i>		A step-by-step guide for evaluating the preferred closure scenarios using a hybrid options assessment model <i>I Lourel, DJ Todd, AY Liu, GHD Pty Ltd, Australia</i>
16:25	Good acid mine drainage management begins well before mine closure: a New Zealand example <i>EJP Sinclair, Bathurst Resources Limited, New Zealand; P Weber, Mine Waste Management Limited, New Zealand</i>		Driving outcomes through transformational mine closure program delivery <i>B Kalisch, Turner & Townsend, Australia; T Dunow, Turner & Townsend, Canada</i>
16:45	Dust controls at the coarse ore storage facility, Oyu Tolgoi, Mongolia <i>B Dandarmaa, Oyu Tolgoi LLC, Mongolia; B Bazartseren, National University of Mongolia, Mongolia; U Buyantogtokh, T Luvsan, T Oyun-Erdene, D Batsuuri, Oyu Tolgoi LLC, Mongolia; B Ochirbold, S Amarsanaa, German-Mongolian Institute of Resources and Technology, Mongolia</i>		Completion of the North End Box Cut waste landform rehabilitation: implementation challenges and learnings <i>P Chester, K McNamara, E Charsley, S Lee, Rio Tinto, Australia</i>
17:05	Marra Mamba South waste rock dump cover system field trial autopsy, Tom Price Mine, Western Australia, Australia <i>BA Johnson, Okane Consultants, Australia; L Terrusi, Rio Tinto, Australia; EJ Forbes, Okane Consultants, Australia; R Barritt, S Lee, Rio Tinto, Australia</i>		Investigating the biophysical challenges associated with mine closure in different mining methods <i>E Fathi Salmi, CSIRO, and Mining3, Australia; R Costa Picorelli, formerly of CSIRO, and Mining3, Australia; E Sellers, CSIRO, and Mining3, Australia</i>
17:25			An innovative approach to bauxite residue site remediation: a case study reviewing the dewatering, reprofiling and revegetation of a closed bauxite residue site in Jamaica <i>L Williams, J Williams, Rio Tinto, Canada, and Rio Tinto, Jamaica; K Evans, Rio Tinto, Canada, and Rio Tinto, UK; D Leclerc, Rio Tinto, Canada</i>
17:45	DAY ONE CLOSE		

PLENARY SESSION TWO	
CHAIR TBA	Technical Session Sponsor
08:00 KEYNOTE: Transforming engineering into ecological engineering for developing resilient ecosystems at mined landscapes L Huang , The University of Queensland, Australia	
08:30 Initiating a just transition in response to low carbon energy transition in coalfield communities, Western Ukraine P Hesketh , A Ma, ERM, UK; E Kiviet , Arup, UK	
09:00 Suggesting landscape as a framework for mine closure of abandoned open cast mines based on understanding global practices, standards and vision AK Slatch , RWTH Aachen University, Germany	
9:30 MORNING BREAK	
PARALLEL SESSIONS	
SESSION SEVEN: URANIUM MINE CLOSURE (1)	SESSION EIGHT: PLANNING, RELINQUISHMENT AND LEGACY MANAGEMENT (1)
CHAIR TBA	CHAIR TBA
Technical Session Sponsor	Technical Session Sponsor
10:00 Climate change and mine closure: initial risk assessment of the Ranger Mine closure plan D Rissik , M Iles, BMT, Australia	
10:20 Application of a vulnerability assessment framework to assess environmental risks of solutes at Ranger Mine, Northern Territory, Australia DL Richardson , B Heeley, D Rissik, M Iles, BMT, Australia	A Peruvian case study: optimising mine planning through mine closure decision assessment J Sanders , A Fitzpatrick, Klohn Crippen Berger Ltd, Australia
10:40 Drone-based investigations of uranium mining legacies: an airborne gamma spectrometry method to support, inspect and monitor the mine closure processes B Preugschat , Federal Institute for Geosciences and Natural Resources, Germany; C Kunze , IAF Radioökologie GmbH, Germany; B Wiens , Third Element Aviation GmbH, Germany; S Altfelder , International Atomic Energy Agency, Austria	Integration of surface and groundwater studies to support closure planning at the legacy Hercules Mine, Tasmania, Australia MG Haywood , C O'Farrell, Tetra Tech Coffey Pty Ltd, Australia; DR Jones , DR Jones Environmental Excellence, Australia; J Crosbie , B Osgerby, MMG Limited, Australia
11:00 Risk-based contaminant management: Ranger case study M Iles , D Rissik, BMT, Australia	A case study in borrow source characterisation N Cristi , BHP, USA
11:20 Climate change impact on the closure design for the rehabilitation of the former Rum Jungle uranium mine D O'Toole , SLR Consulting, Australia; J Hartnett , Northern Territory Government, Australia; P Cupitt , P Georgiou, A Riascos, SLR Consulting, Australia	Realising rehabilitation of legacy mine areas as an opportunity under an environmental, social and governance framework FA Harrison , M Kiejda, GHD Pty Ltd, Australia
11:40 TBA	Evaluation of historic and contemporary rehabilitation performance to optimise rehabilitation planning, methodologies and outcomes C Gimber , M Goldner, ERM, Australia; M Lord , formerly ERM, Australia; J Fittler , Anglo American Metallurgical Coal, Australia; T Bell , Anglo American, Australia; I Hardy , Anglo American Metallurgical Coal, Australia
11:45 LUNCH	
SESSION NINE: SITE REMEDIATION AND IMPACT MANAGEMENT (2)	SESSION TEN: ECOSYSTEM RECONSTRUCTION (1)
CHAIR TBA	CHAIR TBA
Technical Session Sponsor	Technical Session Sponsor
12:45 Pit lake water quality closure tool for Hazelwood brown coal mine, Victoria, Australia M Landers , RGS Environmental Consultants, Australia; J Faithful , A Scrase, formerly ENGIE Australia Pty Ltd, Australia	
13:05 Pit lake geochemical modelling for closure MK Herrell , SRK Consulting, Canada; AL Prestia , SRK Consulting, USA; R Bowell , SRK Consulting, UK; G Bosley , Perpetua Resources, USA	Achieving landscape-scale social and ecological recovery for successful mine closure N Tashe , EcoTASH Limited, Canada; L Hantler , Peace River Coal Ltd.,
13:25 Consideration of the risks per- and poly-fluoroalkyl substances pose in adopting suitable mine closure rehabilitation milestones and completion criteria A Maier , K East , C Gimber, ERM, Australia	
13:45 A case study: conceptual rehabilitation and closure planning for the Loy Yang mine using the risk-based probabilistic approach employing the Mine Geotechnical Risk Index methodology S Narendranathan , N Patel , T Mok , J Stipcevic , GHD Pty Ltd, Australia; A Symonds , AGL Pty Ltd, Australia	Initial conditions can have long-term effects on plant species diversity in jarrah forest restored after bauxite mining MI Daws , AH Grigg , C Blackburn , JM Barker , Alcoa of Australia, Australia; RJ Standish , Murdoch University, Australia; M Tibbett , University of Reading, UK
14:05 A case study: development of a conceptual ground movement model for the Loy Yang mine with consideration to rehabilitation and closure S Narendranathan , J Stipcevic , GHD Pty Ltd, Australia; A Symonds , AGL Pty Ltd, Australia; J Faithful , GHD Pty Ltd, Australia	Assessing monitoring data to measure and improve rehabilitation performance at four mine sites in the Pilbara region of Western Australia SJ Gregory , SP Mackenzie, Mine Earth Pty Ltd, Australia; TJ Sprenkels , AG Slabber, Atlas Iron, Australia
14:25 Remediation of oil sands naphthenic acids by activated persulfate oxidation and biodegradation A Balaberda , AC Ulrich, University of Alberta, Canada	Exploring biophysical limitations and post-mining native ecosystem rehabilitation outcomes in Queensland, Australia CS Spain , Aspect Ecology, Australia; EJ Gagen , Office of the Queensland Mine Rehabilitation Commissioner, Australia; SJ Nuske , Swedish University of Agricultural Sciences, Sweden; J Purtil , Office of the Queensland Mine Rehabilitation Commissioner, Australia
14:45 AFTERNOON BREAK	Monitoring outcomes of rehabilitation of large-scale exploration disturbance: what is the role of remote sensing? N Banning , Stantec, Australia; J Stanbury , Rio Tinto, Australia; D Kinneer , B McMillan, DA Jasper, Stantec, Australia; C Jowett , Rio Tinto, Australia
SESSION ELEVEN: URANIUM MINE CLOSURE (2)	SESSION TWELVE: ECOSYSTEM RECONSTRUCTION (2)
CHAIR TBA	CHAIR TBA
15:15 Ranger Mine: closing a uranium mine surrounded by a World Heritage listed national park SM Paulka , Energy Resources of Australia, Australia	Aquatic habitat remediation following a mine tailings storage facility embankment breach BG Wernick , LH Nikl, CE Stevens, WSP Golder, Canada
15:35 Coordinated landform and multi-layer gas barrier cover system design for uranium tailings A Auckland , K De Vos, D Johnson, F Junqueira, WSP Golder, Canada	Assessing the performance of blended byproduct caps for revegetation and closure of tailings storage facilities G Taki , PF Grierson, N Saini, The University of Western Australia, Australia; HEA Brand , Australian Synchrotron, Australia; DV Murphy , Murdoch University, Australia; TC Santini , The University of Western Australia, Australia
15:55 Multiple frameworks informing closure criteria at Ranger Mine M Iles , BMT, Australia	Natural analog of a cover with capillary barrier effects to improve the long-term performance evaluation and the design of the cover MK Cissé , M Guittouy, B Bussière, Université du Québec en Abitibi-Témiscamingue, Canada
16:15 Deriving background concentrations of contaminants of potential concern in groundwater: an example from the Ranger uranium mine, Australia TR Weaver , D Kovacsy , DE Windle , ERM, Australia; W Gemson , Hydro Geochem Group, Australia; N Hausmann , Accenture, USA; M Shibata , ERM, USA; D Staggs , Energy Resources Australia, Australia; M Iles , BMT, Australia	Five years of biodiversity index value in the reclamation area of former tin mining A Mujahid , Bandung Energy and Mining Polytechnic, Indonesia; J Sudrajat , HA Octaviano, Ministry of Energy and Mineral Resources, Indonesia; TR Wijaya , A Darmawan, CI Romauli, PT Timah Tbk, Indonesia
16:35	Developing a systematic model to rehabilitate key domains of gold mines for environmental sustainability D Yang , F Binks, Agnico Eagle Australia, Australia
16:55 DAY ONE CLOSE	
18:30 CONFERENCE DINNER - BRISBANE CITY HALL	

*Correct as at time of printing and subject to change. See acgmineclosure.com for updates.

Preliminary Program*

Day Three: Thursday 6 October 2022

15th International Conference on Mine Closure

PLENARY SESSION THREE

CHAIR *TBA*

Technical Session Sponsor



08:00 KEYNOTE: Transformation for positive post-mine futures *G Boggs, T Measham, CRC TiME, Australia; A Littleboy, CRC TiME, and The University of Queensland, Australia; F Haslam McKenzie, CRC TiME, and The University of Western Australia, Australia*

08:30 Flora restorer: sowing a diverse ecosystem *M Dobrowolski, Iluka Resources Ltd, and Murdoch University, and The University of Western Australia, Australia*

09:00 Review of mine waste capping methodologies in semi-arid regions of Queensland, Australia *DJ Williams, The University of Queensland, Australia*

09:30 Predicting the long-term erosional stability of valley fill tailings dams using a computer-based landscape evolution model *G Hancock, The University of Newcastle, Australia; T Coulthard, The University of Hull, UK*

10:00 MORNING BREAK

PARALLEL SESSIONS

SESSION THIRTEEN: LANDFORM DESIGN AND REHABILITATION (1)

SESSION FOURTEEN: PLANNING, RELINQUISHMENT AND LEGACY MANAGEMENT (2)

CHAIR *TBA*

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10:30 Accelerating soil formation in bauxite residue: a solution for long-term tailings management and storage *G Scullett-Dean, K Stockwell, The University of Western Australia, Australia; L Myers, H Nyeboer, Alcoa of Australia, Australia; TC Santini, The University of Western Australia, Australia The University of Western Australia, Australia*

InSAR monitoring of a challenging closed mine site with corner reflectors *E Sage, R Holley, L Carvalho, M Miller, N Magnall, A Thomas, CGG, UK*

10:50 Assessment and development of erosion models for landform design at BHP legacy tailings storage facilities in Arizona, USA *N Abramson, JD Pelletier, University of Arizona, USA; S Ananthanarayan, S Chataut, BHP, USA; D Ludwick, SRK Consulting, USA*

Repurposing of the Genex Kidston mine site in Queensland, Australia *DJ Williams, The University of Queensland, Australia; A McGhie, Genex Power, Australia; T Short, Highlands Environmental, Australia*

11:10 From spoil to soil: utilising waste materials to create soils for mine rehabilitation *A Walmsley, L Mundodi, A Sederkenny, Monash University, Australia; N Anderson, J Missen, AGL Loy Yang, Australia; M Yellishetty, Monash University, Australia*

The role of key performance indicators throughout the mine life in achieving closure objectives *J Shaw, ERM, UK; R Pedlar-Hobbs, D Chubb, ERM, Canada*

11:30 Reclaiming waste rock piles at Bingham Canyon mine *B Nobis, Z Kenyon, Rio Tinto, USA*

A framework for developing social mine closure criteria *J Edwards, SLR Consulting Limited, UK; V Bester, A Maritz, SRK Consulting, South Africa*

11:50 An approach to simulate long-term erosion equilibrium of a rehabilitated mine landform *D Nair, SM Bellairs, K Evans, Charles Darwin University, Australia*

Using imagery to develop a three-dimensional resource model of waste rock landforms for closure design *K Bennett, Stantec, Australia; J Erickson, Stantec Consulting Inc., USA; D Blaxland, A Langley, Gold Fields, Australia; P Crouse, Stantec Consulting Inc., USA; P Wallace, Stantec, Australia*

12:10 TBA

12:13 LUNCH

PLENARY SESSION FOUR

CHAIR *TBA*

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13:15 Store-and-release cover column trials at Dugald River mine *TK Rohde, HG Vogler, SGM Environmental Pty Limited, Australia; J Crosbie, MMG Limited, Australia; C Rieck, Chinova Resources Pty Ltd, Australia; G Green, MMG Limited, Australia*

13:35 A case study for designing and testing a tailings storage facility cover *ASH Haagner, SJ van Wyk, Agreenco Environmental Projects, South Africa*

13:55 Six months of monitoring of a tailings storage facility barrier cover trial at Rosebery Mine, Tasmania, Australia *B Osgerby, J Crosbie, N Davison, MMG Limited, Australia; HG Vogler, TK Rohde, SGM Environmental Pty Ltd, Australia*

14:15 Evaluating construction tolerances and tailings dam shape for closure using the CAESAR-Lisflood landscape evolution model *N Slingerland, WSP Golder, Canada; S Dressler, WSP Golder, Australia*

14:35 Design and construction of a combination soil and water cover on a tailings storage facility in Tasmania, Australia *C Cahill, R Longey, GHD Pty Ltd, Australia; D Tonks, Grange Resources, Australia*

14:55 The importance of climate for evapotranspiration cover design *K Greaser, Stantec Consulting Inc., USA; W Weinig, Stantec, Australia*

15:15 AFTERNOON BREAK

PLENARY SESSION FIVE

CHAIR *TBA*

Technical Session Sponsor



15:45 Subsidence ponded landforms and closure *S Breslin, S Frazer, E Waddell, Engeny, Australia*

16:05 A catchment-scale comparison of field observations of a constructed landform with erosion predictions from a landform evolution model *JBC Lowry, MJ Saynor, Department of Agriculture, Water and the Environment, Australia; GR Hancock, The University of Newcastle, Australia; T Coulthard, The University of Hull, UK*

16:25 Closure costing/rehabilitation liability math: why doesn't it add up? *AA Neubauer, Klohn Crippen Berger Ltd, Australia*

16:45 The high cost of poor closure estimates *T Dunow, Turner & Townsend, Canada; B Kalisch, Turner & Townsend, Australia*

17:05 Farewell *AB Fourie, Mine Closure 2022 Conference Co-Chair, The University of Western Australia, Australia*

17:15 CONFERENCE CLOSE

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PROFESSIONAL DEVELOPMENT HOURS

UP TO 33

PD HOURS



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