



The Australian **MINE VENTILATION**

CONFERENCE

28-30 August 2017 | Brisbane, Australia

Final Program

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General Information

CONFERENCE ORGANISING COMMITTEE

Conference Chairperson:

Duncan Chalmers MAusIMM, UNSW Australia

Technical Review Committee Chairperson:

Bharath Belle MAusIMM(CP), Anglo American Coal
(Australia & South Africa)

Organising Committee:

Saied Aminossadati (Amin), The University of Queensland

Basil Beamish MAusIMM(CP), B3 Mining Services Pty Ltd

Rick Brake FAusIMM(CP), Mine Ventilation Australia,
Monash University

Johannes Holtzhausen, MMG & Mine Ventilation Society
of Australia

Ting Ren MAusIMM, University of Wollongong

John Rowland, Dallas Mining Services Pty Ltd

Craig Stewart MAusIMM, CHASM Consulting

Jerry Tien MAusIMM, Monash University

Mick Tuck MAusIMM, Federation University

Leon van den Berg MAusIMM, BBE Group

Guang Xu, Western Australian School of Mines

EVENT MANAGEMENT: THE AUSIMM

Eliza Sanneman, Team Leader, Senior Coordinator, Events

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CONFERENCE VENUE

Brisbane Convention & Exhibition Centre

Cnr Merivale and Glenelg Streets

South Bank, Brisbane, Queensland Australia

REGISTRATION DESK

The registration desk will be open:

Sunday 27 August 4.00 pm – 6.00 pm

Monday 28 August 7.30 am – 6.00 pm

Tuesday 29 August 7.30 am – 5.00 pm

Wednesday 30 August 7.30 am – 2.00 pm

SOCIAL FUNCTIONS

Welcome Reception

Monday 28 August

Time: 5.00 pm – 6.00 pm

Venue: M3, Brisbane Convention & Exhibition Centre

Cost: Complimentary for all delegates

Guests: \$55 per person

Conference Dinner

Tuesday 29 August

Time: 7.00 pm for 7.30 pm

Venue: Rydges South Bank Brisbane

Cost: Complimentary for all delegates

Guests: \$132 per person

Dress: Smart casual

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This Conference Dinner is a ticketed event. Only pre-booked delegates and guests will be allowed entry.

SPEAKER PREPARATION

Audio visual technicians will be on hand throughout the conference to assist with uploading your presentation. Speakers are required to meet with their session chair and load their presentation during the break prior to their session. Your presentation should be provided on a USB stick.

NAME TAGS

You will be issued with a name tag upon registration. Your name tag is the official pass to all sessions and must be worn at all times. Lost name tags can be replaced at the registration desk.

CONFERENCE PROCEEDINGS

Delegates will receive their choice of either one USB or printed proceedings, containing full papers. Collect your conference proceedings or purchase additional copies via the AusIMM display.

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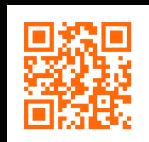
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Day 1 – Monday 28 August 2017
M1 & M2 Brisbane Convention & Exhibition Centre

8.30 am – 10.25 am	Session 1: Official Opening Session Chair: Duncan Chalmers MAusIMM, The Australian Mine Ventilation Conference 2017 Chairperson
8.30 am – 8.40 am	Welcome & OH&S: <i>Duncan Chalmers MAusIMM, The Australian Mine Ventilation Conference 2017 Chairperson</i>
8.40 am – 8.50 am	Official Opening: <i>Stephen Durkin MAusIMM, Chief Executive Officer, the AusIMM</i>
8.50 am – 9.15 am	Keynote Presentation I: Health and safety – not just a priority: a core value — <i>Kate du Preez, Queensland Commissioner for Mine Safety and Health</i>
9.15 am – 9.40 am	Fan specification and tender adjudication for mine ventilation engineers with particular reference to turnkey projects — <i>D J Brake</i>
9.40 am – 10.05 am	Ventilation design rules of thumb – friend or foe? Focusing on design upcast air velocities for shafts and raisebores — <i>A Derrington</i>
10.05 am – 10.30 am	A review of ventilation and gas management in underground mines — <i>B Robertson and A Self</i>
10.30 am – 11.00 am	Morning Tea Break and Exhibition, M3
11.00 am – 12.45 pm	Session 2: Methane and Coal Dust Explosions Session Chair: Bharath Belle MAusIMM(CP), Anglo American Coal
11.00 am – 11.25 am	The history of mine ventilation in the United Kingdom — <i>J R Leeming</i>
11.25 am – 11.50 am	Introducing a new age of highly effective automatic explosion suppression barriers — <i>A Spaeth, B Belle and H Phillips</i>
11.50 am – 12.15 pm	Computational simulation of gas explosion and its propagation in single entry gateroad — <i>A Liu and T Ren</i>
12.15 pm – 12.40 pm	Keynote Presentation II: Improving coal mine safety through 'Green Mining' by using enhanced methane drainage and utilisation — <i>Gui Laibao, Deputy Administrator of State Administration of Coal Mine Safety, China</i>
12.40 pm – 12.45 pm	AusIMM Mining Society presentation — <i>Mick Tuck MAusIMM, AusIMM Mining Society Committee Member</i>
12.45 pm – 1.40 pm	Lunch Break and Exhibition, M3
1.40 pm – 3.20 pm	Session 3: Coal Mine Ventilation Session Chair: Kevin Lownie, Howden <i>Proudly Sponsored by: </i>
1.40 pm – 2.05 pm	Operation of deep mill level zone mixed flow fans after the first fan upgrade – a parallel fans case study — <i>R Sani, A Sianturi and K Lownie</i>
2.05 pm – 2.30 pm	Safety impact of increased shaft ventilation on rope guided conveyances — <i>M E Greenway, S R Grobler and R S Hamilton</i>
2.30 pm – 2.55 pm	Inertisation of coal augering holes — <i>M Watkinson and B Leisemann</i>
2.55 pm – 3.20 pm	Application of modelling to improve ventilation and gas management in a single entry longwall panel — <i>D J Black</i>
3.20 pm – 3.45 pm	Afternoon Tea and Exhibition, M3
3.45 pm – 5.00 pm	Session 4: Heat and Refrigeration Session Chair: Alan Loudon, Aggreko – APAC <i>Proudly Sponsored by: </i>
3.45 pm – 4.10 pm	Accurately estimating heat load from conveyed rock — <i>M A Tuck</i>
4.10 pm – 4.35 pm	The use of mid panel ventilation shafts to improve positional cooling efficiency in a Bowen Basin longwall mine – a case study — <i>B Belle, D Brouwer and P Wild</i>
4.35 pm – 5.00 pm	Heat load assessment and mine cooling strategies for a longwall coal mine — <i>L van den Berg and M Olsen</i>
5.00 pm – 6.00 pm	Welcome Reception, M3

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Day 2 – Tuesday 29 August 2017
M1 & M2 Brisbane Convention & Exhibition Centre

8.30 am – 10.20 am	Session 5: Health Hazard Management-Respirable Dust Session Chair: Rick Brake FAusIMM(CP), Mine Ventilation Australia
8.30 am – 9.00 am	Keynote Presentation III: Regulator's perspective on gas and ventilation management — <i>Lee Shearer, Chief Compliance Officer, NSW Resources Regulator</i>
9.00 am – 9.25 am	Products of reactive pyrite oxidation in the mine environment – implications for coal workers' pneumoconiosis — <i>B B Beamish, C R Ward and D Chalmers</i>
9.25 am – 9.50 am	Pairwise evaluation of PDM3700 and traditional gravimetric sampler for personal dust exposure assessment — <i>B Belle</i>
9.50 am – 10.15 am	Wall flow type diesel particulate filter system to replace existing wet element filter systems used in typical LHDs in underground coal operations — <i>N Coplin</i>
10.15 am – 10.20 am	Mine Ventilation Society of Australia Presentation — <i>Michael Shearer, The Mine Ventilation Society of Australia</i>
10.20 am – 10.50 am	Morning Tea Break and Exhibition, M3
10.50 am – 12.55 pm	Session 6: Health and Safety Hazard Management Session Chair: Jerry Tien MAusIMM, Monash University
10.50 am – 11.15 am	Delivering a healthy atmosphere underground in a cost-conscious environment — <i>J Black and D Reid</i>
11.15 am – 11.40 am	A comparison of auxiliary ventilation systems and their predicted operational performances — <i>H W Wu and A D S Gillies</i>
11.40 am – 12.05 pm	Diesel to electric – creating a positive paradigm in underground ventilation and cooling — <i>W Harris, S Arsenault, C McGuire, B Rogers and D Witow</i>
12.05 pm – 12.30 pm	Findings from preliminary testing to determine alternative sources of ethylene within sealed areas of underground coal mines — <i>E Westthorp and J Phillips</i>
12.30 pm – 12.55 pm	New generation of gas sensors for underground coal mining applications — <i>B M Masum, S M Aminossadati, C R Leonardi, M S Kizil and M Amanzadeh</i>
12.55 pm - 1.55 pm	Lunch Break and Exhibition, M3
1.55 pm – 3.40 pm	Session 7: Health Hazard Management II Session Chair: Basil Beamish MAusIMM(CP), B3 Mining Services Pty Ltd
1.55 pm – 2.35 pm	Keynote Presentation IV: The complete renewal of Great Britain's mining law for the 21st century — <i>Bob Leeming, HM Chief Inspector of Mines, Health and Safety Executive</i>
2.35 pm – 3.00 pm	The effect of high geo-temperature on spontaneous combustion – an experimental study — <i>C Lei, J Deng, Y Xiao, C Shu, K Wang and W Wang</i>
3.00 pm – 3.25 pm	Study on coal wettability for dust suppression in the presence of surfactants by sink test — <i>Y Chen, G Xu, R Wang and B Albijanic</i>
3.25 pm – 4.00 pm	Afternoon Tea and Exhibition, M3
4.00 pm – 5.15 pm	Session 8: Detection and Control of Spontaneous Combustion & Diesel Emissions Control and Measurement Session Chair: Guang Xu, Western Australia School of Mine
4.00 pm – 4.25 pm	Recognising the deficiencies of current spontaneous combustion propensity index parameters — <i>B B Beamish and J Theiler</i>
4.25 pm – 4.50 pm	Application of an environmental 'black carbon' particulate sensor for continuous measurement of DPM in three underground mines — <i>J C Volkwein, C Barrett, E Sarver and A D A Hansen</i>
4.50 pm – 5.15 pm	Gases products of weathered coal during the process of spontaneous combustion — <i>J Deng, J Song, J Zhao, Y Zhang, X Yi and Y Zhang</i>
5.15 pm - 5.45 pm	Mine Ventilation Society of Australia – <i>Annual General Meeting</i>
7.00 pm for 7.30 pm	Conference Dinner, Rydges South Bank Brisbane

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12 month snapshot

112,000m

directionally drilled
in seam

1,278,470km

driven for work

672

exploration holes

20

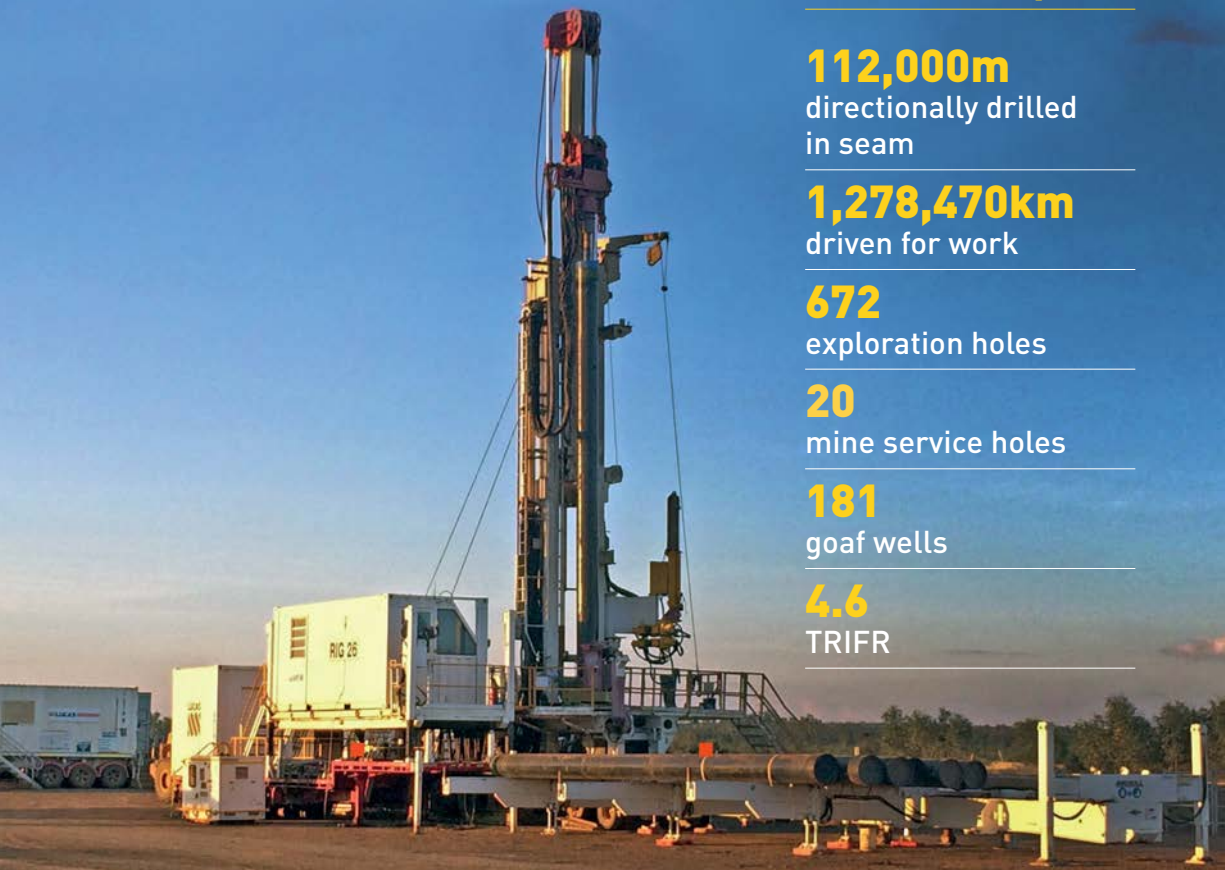
mine service holes

181

goaf wells

4.6

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Day 3 – Wednesday 30 August 2017
M1 & M2 Brisbane Convention & Exhibition Centre

8.30 am – 10.20 am	Session 9: Ventilation Management Session Chair: Travis Roberts, Gordon Brothers Industries Pty Ltd	Proudly Sponsored by: 
8.30 am – 9.00 am	Keynote Presentation V: Mine Dust Monitoring Past and Present — <i>Jon Volkwein, Retired NIOSH</i>	
9.00 am – 9.25 am	Australian longwall ventilation systems — <i>M Webber, B Belle and J Rowland</i>	
9.25 am – 9.50 am	A review of the strategy and gas monitoring results obtained during the use of the Queensland Mine Rescue Service GAG unit at Crinum North mine — <i>E Westthorp</i>	
9.50 am – 10.15 am	Tube bundle integrity testing methodologies — <i>L Forrester</i>	
10.15 am – 10.20 am	Women in Mining Network (WIMnet) Presentation — <i>Holstein Wong, WIMnet Committee Member</i>	
10.20 am – 10.50 am	Morning Tea Break and Exhibition, M3	
10.50 am – 12.55 pm	Session 10: Case Studies Session Chair: Darryl Witow, Hatch Ltd	Proudly Sponsored by: HATCH
10.50 am – 11.15 am	Auxiliary ventilation design – why and how mines waste so much power on inferior systems — <i>D J Brake</i>	
11.15 am – 11.40 am	Using liquid nitrogen for the inertisation of goafs — <i>D Caley</i>	
11.40 am – 12.05 pm	An overview of ventilation and gas management systems in an underground coal mine in Iran — <i>F Hasheminasab, S M Aminossadati and R Bagherpour. Presented by Amin Kaymar</i>	
12.05 pm – 12.30 pm	Determining ventilation system model inputs from field test work in the oil shale mine — <i>S Sabanov</i>	
12.30 pm – 12.55 pm	Case study – an analysis of reliability and efficiency: ultrasonic versus annubar technologies — <i>M J Shearer</i>	
12.55 pm – 1.20 pm	Emergency egress pathway prediction using ventilation models — <i>C M Stewart, S M Aminossadati and M S Kizil</i>	
1.20 pm – 2.10 pm	Lunch Break and Exhibition, M3	
2.10 pm – 3.45 pm	Session 11: Coal Seam Gas, Including Gas Drainage/Storage and Utilisation Session Chair: Mick Tuck MAusIMM, Federation University	
2.10 pm – 2.35 pm	Gas reservoir and emission modelling to evaluate gas drainage to control tailgate gas concentration and fugitive emissions — <i>D J Black</i>	
2.35 pm – 3.00 pm	Coal seam gas predrainage optimisation through an enhanced knowledge of coal seam permeability — <i>M Blanch</i>	
3.00 pm – 3.25 pm	Application of side venting technique in mitigation of methane – air explosion and flame deflagration in ventilation air methane — <i>M Ajrash, J Zanganeh and B Moghtaderi. Presented by Francis Nadaraju</i>	
3.25 pm – 3.45 pm	Conference Close, Duncan Chalmers MAusIMM, The Australian Mine Ventilation Conference 2017 Chairperson	

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- Three-day technical program with over 50 papers
- Trade exhibition featuring 50+ Australian and International companies
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Keynote Presenters

- Lena Abrahamsson, Professor, Luleå University of Technology
- Mark Adams MAusIMM, Kaama Consulting
- Gideon Chitombo MAusIMM, The University of Queensland
- Dale Elphinstone, Elphinstone Group
- Joe Luxford FAusIMM(CP), Trident Project & Mining Services
- Professor Michael Quinlan, UNSW Australia
- Paul Rouse MAusIMM, PYBAR Mining Services Pty Ltd

Workshops:

- W1: ACG Shotcrete Design & Performance Workshop
- W2: Cave Mining 2040 Masterclass
- W3: Diesel Emissions in Underground Mines
- W4: Making a Success of Underground Mine Contracts

Conference Tours:

- Ernest Henry Mine and Dugald River



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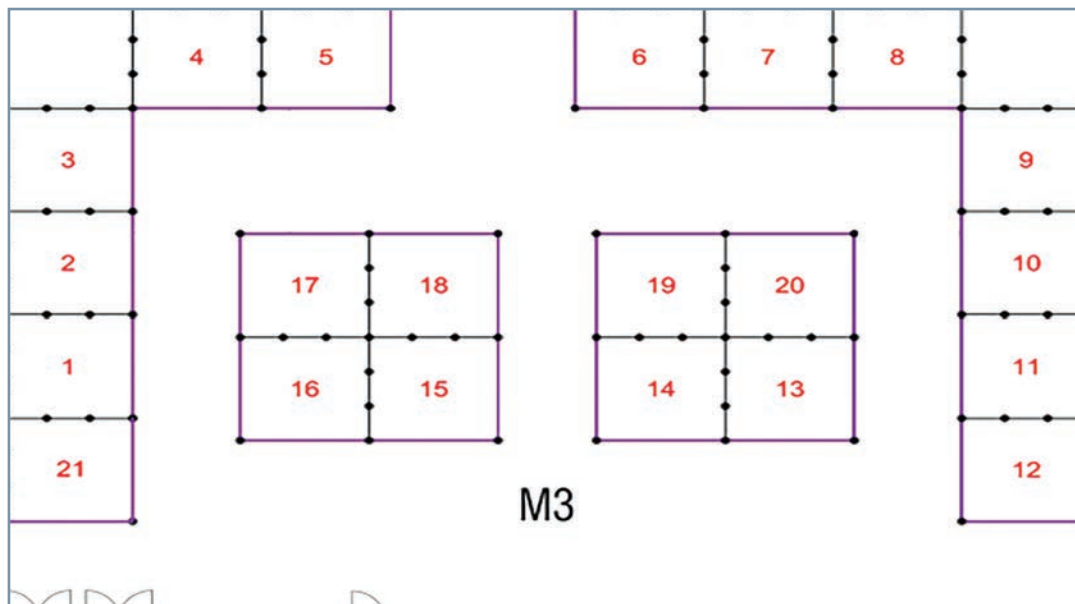


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Exhibitor Floor Plan and listing

Trade Exhibition Hours

Monday 28 August 7.30 am – 6.00 pm | Tuesday 29 August 7.30 am – 5.00 pm | Wednesday 30 August 7.30 am – 2.10 pm



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8	BBE Group bbegroup.com.au 
9	Zitron zitron.com 

Booth	Company
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