# QUEENSLAND MINING INDUSTRY Health & Safety

Conference 2017

Sharing

story

Understanding and leading in times of true adversity

6 - 8 August

The Star Gold Coast

Principal Sponsor
GLENCORE

2017 2017 CONF



# Handbook





### **Sponsors**

The Queensland Mining Industry Health and Safety Conference Committee wishes to recognise and thank GLENCORE for continuing to be the Principal Sponsor for a second year and to thank the following organisations for their generosity and continuing support of this event.









































**Simtars** 







The above Sponsors were confirmed at the time of printing.

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### **HEALTH HUB**

Alcohol and Other Drugs Service
CQ Rescue Health Services
Danger Sun Overhead
Diabetes Queensland - My health for life
Health-e Mine
Healthy Workers Initiative Workplace
Health and Safety Queensland

**MATES** in Mining

Quitline (13QUIT)
Rural and Remote Mental Health

### **GUEST DISPLAYS**

A Miners Legacy Driver Safety Australia Resources Training Council

### **VEHICLE DISPLAYS**

**Queensland Mines Rescue Service** 

### Welcome

Dear Industry Colleagues,

Welcome to the 29th Queensland Mining Industry Health & Safety Conference. As the Conference Chair this year, it is my pleasure to welcome you on behalf of the 2017 Conference Committee.

You will have noted the theme this year is 'Sharing MY story' with a subtheme of Understanding and leading in times of true adversity. These themes are not chosen at random – they are well thought out and decided upon by the Committee who represent all sectors of the mining industry in Queensland. By sharing our stories, we can share our knowledge – enabling us to learn from each others experiences and prevent incidents and injuries re-occurring. We encourage all of you to take these stories back to your workplace. Sharing information can save lives.

This year's Conference begins with a powerful presentation, honouring two of the industry's 'legends' - Ron McKenna and John Brady. Their dedication and commitment over the past six decades has been exceptional as they walk-the-talk with the objective of making the mining industry safer.

The Queensland Mining Industry Health and Safety Conference recently initiated a process to capture and record some of the significant events in Queensland's mining history for future reference and education. Mark Parcell facilitated the interviews featuring this year's legends Ron McKenna and John Brady, as well as other significant contributors, John Tate, Martin Watkinson and Greg Dalliston. Video grabs of these recordings will be played throughout the Conference.

The Honourable Dr Anthony Lynham MP, Minister for State Development and Minister for Natural Resources will officially open the Conference. He will be followed by Lee Shearer APM, Coordinator General for the Central Coast, NSW Department of Planning & Environment with her Keynote presentation on 'Leading in Times of Change'.

Virginia Trioli, Presenter, News Breakfast ABC TV and guest host of the ABC's Q&A will facilitate the controversial topic of **Does Legislation Make a Difference?** Our legislation aims to protect the safety and health of people at mines - but does it? A panel including industry, union and regulatory representatives will debate compliance, safety culture and safety leadership, court decisions, legislative development and the overall effectiveness. We expect lively discussion from this diverse group of participants.

To make the most of your time at the Conference, do your best to attend all Keynote Sessions on Sunday, Monday and Tuesday and the concurrent sessions on Tuesday afternoon. All sessions will have time for Q&A; and we want to hear from you.

We also recommend you attend the Innovation presentations on Monday afternoon. There were 10 great Innovations selected as finalists, but there can only be one winner. The major prize for the winner of this year's Innovation Awards is the opportunity to attend the A+A Trade Show in Düsseldorf, Germany, as the guest of uvex safety Australia.

This Conference is all about networking and sharing your experiences with fellow mine workers and we have allocated time for this at scheduled social events and during the breaks. Take full advantage of these opportunities as they are invaluable.

Our presenters are deserving of a special mention. They will be sharing their knowledge and updating us on their progress across a wide range of topics. We thank them for taking the time to attend the Conference and for their invaluable contribution to the program.

We especially thank all our sponsors and those taking up a Display Booth. Your participation allows us to host an event that recognises the importance of health and safety to the mining industry in Queensland.

Glencore are once again our Principal Sponsor and host of the Conference Dinner. uvex safety Australia are sponsoring the informal dinner and the major prize for the Innovation Awards. We also thank Peabody, Simtars and all others who have supported this Conference over many years.

Lastly, but most importantly, we thank you for attending and contributing to what we expect will be another great Conference.

Along with the other Committee Members, I look forward to meeting you over the next few days. If there is anything we can do to make your time more memorable please let us know.

Shane Apps

Thane Appo

Health, Safety and Training Manager - Operations, Peabody

Chair - Queensland Mining Industry Health and Safety Conference 2017

### **WELCOME TO THE STAR - GOLD COAST**

The Star has everything we need for a successful Conference and all under one roof. Set amongst lush landscaped gardens The Star has impressive Convention, Exhibition and Event facilities for all our meeting requirements.

Freshly renovated and ideally situated on Broadbeach Island, this slice of paradise is the perfect place to combine the serious business of conferencing and networking with some well earned time out. From your room you will have either sweeping coastal or hinterland views. If you wish you can start the day with a massage, sweat it out in an invigorating gym session or do some laps in the pool. Regardless, The Star provides all the ingredients for a memorable stay – whether it's for business, pleasure, or a little of both.

### As a general guide the following venues will be used.

#### **Pavilion Convention Centre**

### **Conference Registration**

Pavilion Gallery

### Plenary / Business Sessions

Pavilion Ballroom and Southport Rooms

#### **Concurrent Sessions**

Pavilion Ballroom and Southport Rooms 1, 2 and 3

### The Trade Exhibition

Pavilion Marquee at the end of the Pavilion Gallery

### Social Functions and General Catering

#### Welcome Function

Pavilion Marquee within the Trade Exhibition

### **Morning and Afternoon Breaks**

Pavilion Marquee

#### Lunches

Pavilion Lawn and Pavilion Marquee

### **Informal Dinner**

Pavilion Ballroom

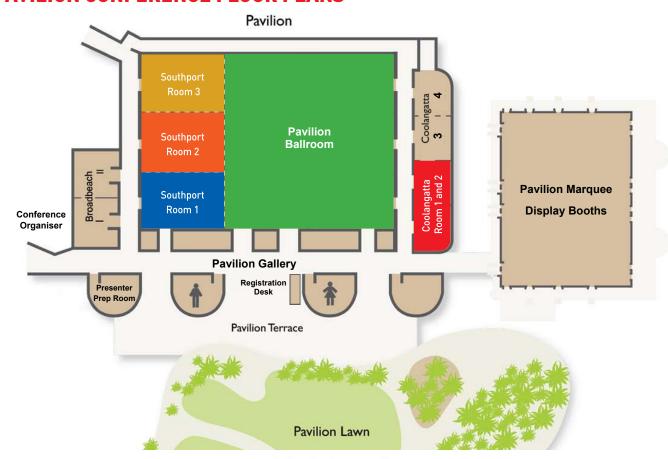
### **Conference Dinner**

Pavilion Ballroom

### **Women in Mining Function**

Poolside on the lower level at The Star

### **PAVILION CONFERENCE FLOOR PLANS**



### **Conference Information**

### Registration opening times - The Pavilion gallery

Sunday 6th August 7.00am - 6.30pm Monday 7th August 7.30am - 6.00pm Tuesday 8th August 7.30am - 6.00pm

### **Sunday Program**

10.00am - 10.30am Morning Break - Pavilion Gallery
10.30am - 12.30pm Conference Opening and Morning Session
12.30pm - 1.30pm Lunch - Pavilion Lawn and Pavilion Marquee
1.30pm - 3.15pm Afternoon Break and Trade Displays - Pavilion Marquee
3.15pm - 3.45pm Afternoon Sessions

6.00pm - 9.00pm Welcome Function and Trade Displays - Pavilion Marquee

### TRADE EXHIBITION - The Pavilion Marquee

All Displays will be within or immediately adjacent to the Pavilion Marquee, just a few steps from the Pavilion Convention Centre.

We have designed the Exhibition to make it easy for you to navigate your way around so you will have plenty of time to make contact with all suppliers and especially those whose products and services which are of special interest to you.

As a bonus, due to the Conference commencing earlier on Sunday, there is now an additional timeslot during the Afternoon Break on Sunday, this will be followed by the Welcome Function on Sunday Evening, all Morning and Afternoon Breaks and at Lunchtime on Monday and Tuesday.

Please take the time to visit all the Displays as they are a valuable resource for you and an important part of this Conference, providing much needed revenue. As a reward you could win one of the great prizes donated by the Exhibitors and also be in the running to win the special prize offered by the Conference to the delegate who has visited the most displays. All prizes will be drawn at the Conference Dinner on Tuesday night.

### TRADE EXHIBITION - MAIN OPENING TIMES

Sunday 6th August	Afternoon Break	3.15pm - 3.45pm	
	Welcome Function	6.00pm - 9.00pm	
Monday 7th August	Morning Break	10.15am – 10.45am	
	Lunch Break	12.15pm - 1.15pm	
	Afternoon Break	2.45pm - 3.15pm	
Tuesday 8th August	Morning Break	10.15am – 10.45am	
	Lunch Break	12.15pm - 1.15pm	
	Afternoon Break	2.45pm - 3.15pm	

### **WELCOME FUNCTION** – Pavilion Marquee

The Welcome Function this year will be held within the Trade Exhibition in the Pavilion Marquee, providing an additional three hours contact with Exhibitors. The format of having the Welcome Function amongst the Trade Exhibition, proved to be such a winner with delegates and suppliers last year, we are repeating it again this year.

### Health Hub - The Pavilion Marquee

Whilst visiting the Trade Exhibition, we recommend you visit the Health Hub where those taking part will be happy to discuss their options with you.

Alcohol and Other Drugs Service
CQ Rescue Health Services
Danger Sun Overhead
Diabetes Queensland - My health for life

Health-e Mine Healthy Workers Initiative Workplace Health and Safety Queensland MATES in Mining Quitline (13QUIT) Rural and Remote Mental Health

### Conference Information



### **Dress Code**

Conference Sessions each day
Welcome Function – Sunday evening
Informal Dinner – Monday evening
Conference Dinner – Tuesday evening

Smart casual
Smart casual (plus warm jacket)
Smart / Dressy casual
Lounge Suits or a Dressy Shirt and Trousers for Men
& Cocktail Attire for Ladies

Please remember that during August, whilst the weather in the middle of the day is often quite warm, it is still winter on the Gold Coast and early mornings and evenings can be cold therefore for your comfort we recommend you dress accordingly.

### **Photography**

The Conference Committee has engaged the services of a Professional Photographer for the purpose of retaining a record of the Conference program and for promotional purposes. Images will be posted on the Conference website and may be used in publications and websites that are accessible by the general public. These images will also be available to be ordered by delegates, free of charge, with the compliments of the Conference Committee and Mark Duffus Photography. If you have any guestions on this activity, please contact the Conference Organiser at the Registration Desk.

### Conference Committee

The Conference continues to be organised by representatives from the three groups that represent the mining industry in Queensland, namely the Mining Companies, through the Queensland Resources Council, the Government (Department of Natural Resources and Mines) and the Unions - (CFMEU Mining and Energy Division, Queensland District and the Australian Workers' Union). It is from their experience and contacts the Program evolves, so it is really a hands on effort through all stages of the planning process

### Poster displays - Innovation and Health Awards - Pavilion Gallery

We have invited the Authors of the Innovation and Health Awards to participate in a Poster Display in the Pavilion Gallery where you will have the opportunity to view all the entries which will be on display for the duration of the Conference.

On Tuesday morning during the Break the Authors will be available to discuss their entries in depth including the inspiration, thoughts and processes behind their submission.

Mark Gleadhill, the 2016 Innovation Award winner, will also have a poster of his 'Portable Air Conditioner' innovation, together with his innovation.



### **Conference Program**



### SUNDAY 6th AUGUST

7.00am - 6.30pm	REGISTRATION - Pavilion Gallery
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10.00am - 10.30am MORNING BREAK - Pavilion Gallery - Proudly Sponsored by LifeAid Pty Ltd

10.30am - 5.30pm PLENARY SESSIONS - Pavilion Ballroom

10.30am MASTER OF CEREMONIES

Russell White, Managing Director, Driver Safety Australia

**CONFERENCE OPENING** 

Presentation of the Inaugural Queensland Mining Industry Health and Safety Conference

'Legends Award' to Ron McKenna and John Brady

WELCOME

Shane Apps, Chair, Queensland Mining Industry Health and Safety Conference 2017

**OFFICIAL OPENING** 

The Hon. Anthony Lynham MP, Minister for State Development and Minister for Natural Resources

and Mines

11.15am -12.30pm KEYNOTE PRESENTATION - Proudly Sponsored by Evolution Mining

Leading in Times of Change

Lee Shearer APM, Coordinator General for the Central Coast, NSW Department of Planning &

Environment

12.30pm - 1.30pm LUNCH - Pavilion Lawn - Proudly Sponsored by Redpath Australia Pty Ltd

1.30pm - 3.15pm FACILITATED SESSION - Pavilion Ballroom

Proudly Sponsored by Mine Safety Institute of Australia

Does Legislation Make a Difference?

Our legislation aims to protect the safety and health of persons at mines, but does it? A panel including industry, union and regulator representatives discuss compliance, safety culture and safety leadership, court decisions, legislative development and effectiveness.

Facilitated by Virginia Trioli, Presenter, News Breakfast, ABC TV

3.15pm - 3.45pm AFTERNOON BREAK AND TRADE DISPLAYS - Pavilion Marquee

Proudly Sponsored by Cirlock Pty Ltd

3.45pm - 5.15pm FACILITATED SESSION - Pavilion Ballroom

Proudly Sponsored by Mine Safety Institute of Australia

Does Legislation Make a Difference? (continued)

Facilitated by Virginia Trioli, Presenter, News Breakfast, ABC TV

5.15pm - 5.30pm Session Close

Russell White, Master of Ceremonies, Managing Director, Driver Safety Australia

6.00pm - 9.00pm WELCOME FUNCTION AND TRADE DISPLAYS - The Pavilion Marguee

Proudly Sponsored by Peabody

9.30pm - to late THE RESCUE STATION - Atrium Bar

### ▲ MONDAY 7th AUGUST

	THE ACCUST
7.30am - 6.00pm	REGISTRATION – Pavilion Gallery
8.00am - 5.30pm	PLENARY SESSIONS – Pavilion Ballrooms  Master of Ceremonies Russell White, Managing Director, Driver Safety Australia
8.15am - 8.45am	Snake Safety for the Workplace - Safety and Solutions Scott Eipper, Owner, Nature 4 You
8.45am - 10.15am	KEYNOTE PRESENTATIONS - Proudly Sponsored by Redpath Australia Pty Limited
8.45am - 9.30am	Caught in the Crossfire Matina Jewell, Keynote Presenter
9.30am - 10.15am	<b>Pike River – A Personal Perspective</b> Daniel Rockhouse being interviewed by Mark Parcell, Sole Director, Mine Safety Institute of Australia
10.15am - 10.45am	MORNING BREAK AND TRADE DISPLAYS - Pavilion Marquee Proudly Sponsored by Cirlock Pty Ltd
10.45am - 12.15pm	Industry Sharing with Industry - Proudly Sponsored by GLENCORE Continuing Industry's desire to learn from others' sites incidents and following past conference themes, this session will feature your fellow Mine Workers sharing the details of issues they have had on their sites. This is meant to be a grass roots session without "spin". A simple presentation on what occurred and if you went to that particular site now what you would find being done differently. It is for you to consider the relevance to your site
	and for you to determine if you have a similar exposure and if you have the controls to reasonably preclude a similar event.
12.15pm - 1.15pm	
12.15pm - 1.15pm 1.15pm - 2.45pm	reasonably preclude a similar event.
	reasonably preclude a similar event. <b>LUNCH AND TRADE DISPLAYS – Pavilion Lawn -</b> <i>Proudly Sponsored by Downer Mining</i>
1.15pm - 2.45pm	LUNCH AND TRADE DISPLAYS – Pavilion Lawn – Proudly Sponsored by Downer Mining  KEYNOTE PRESENTATIONS – Proudly Sponsored by Rio Tinto  The Eclectic Regulator: Risk Tolerance and Variability in Mining Regulation  Tony Forster, Chief Inspector and Strategic Advisor to Coordinator General for Central  Coast, Central Coast Coordination and Resources Regulation Division, NSW Government,
1.15pm - 2.45pm 1.15pm - 2.00pm	LUNCH AND TRADE DISPLAYS – Pavilion Lawn – Proudly Sponsored by Downer Mining  KEYNOTE PRESENTATIONS – Proudly Sponsored by Rio Tinto  The Eclectic Regulator: Risk Tolerance and Variability in Mining Regulation  Tony Forster, Chief Inspector and Strategic Advisor to Coordinator General for Central  Coast, Central Coast Coordination and Resources Regulation Division, NSW Government,  Department of Planning & Environment  SAFETY AND HEALTH: Not Just a Priority – a Core Value
1.15pm - 2.45pm 1.15pm - 2.00pm 2.00pm - 2.45pm	LUNCH AND TRADE DISPLAYS – Pavilion Lawn - Proudly Sponsored by Downer Mining  KEYNOTE PRESENTATIONS - Proudly Sponsored by Rio Tinto  The Eclectic Regulator: Risk Tolerance and Variability in Mining Regulation  Tony Forster, Chief Inspector and Strategic Advisor to Coordinator General for Central  Coast, Central Coast Coordination and Resources Regulation Division, NSW Government,  Department of Planning & Environment  SAFETY AND HEALTH: Not Just a Priority – a Core Value  Kate du Preez, Commissioner, Office of the Commissioner for Mine Safety and Health  AFTERNOON BREAK AND TRADE DISPLAYS – Pavilion Marquee
1.15pm - 2.45pm 1.15pm - 2.00pm 2.00pm - 2.45pm 2.45pm - 3.15pm	LUNCH AND TRADE DISPLAYS – Pavilion Lawn – Proudly Sponsored by Downer Mining  KEYNOTE PRESENTATIONS – Proudly Sponsored by Rio Tinto  The Eclectic Regulator: Risk Tolerance and Variability in Mining Regulation Tony Forster, Chief Inspector and Strategic Advisor to Coordinator General for Central Coast, Central Coast Coordination and Resources Regulation Division, NSW Government, Department of Planning & Environment  SAFETY AND HEALTH: Not Just a Priority – a Core Value Kate du Preez, Commissioner, Office of the Commissioner for Mine Safety and Health  AFTERNOON BREAK AND TRADE DISPLAYS – Pavilion Marquee Proudly Sponsored by Scott Safety  Presentation on Visit to USA by 2016 Innovation Award Winner
1.15pm - 2.45pm 1.15pm - 2.00pm 2.00pm - 2.45pm 2.45pm - 3.15pm 3.15pm - 3.20pm	LUNCH AND TRADE DISPLAYS – Pavilion Lawn - Proudly Sponsored by Downer Mining  KEYNOTE PRESENTATIONS - Proudly Sponsored by Rio Tinto  The Eclectic Regulator: Risk Tolerance and Variability in Mining Regulation Tony Forster, Chief Inspector and Strategic Advisor to Coordinator General for Central Coast, Central Coast Coordination and Resources Regulation Division, NSW Government, Department of Planning & Environment  SAFETY AND HEALTH: Not Just a Priority – a Core Value Kate du Preez, Commissioner, Office of the Commissioner for Mine Safety and Health  AFTERNOON BREAK AND TRADE DISPLAYS – Pavilion Marquee Proudly Sponsored by Scott Safety  Presentation on Visit to USA by 2016 Innovation Award Winner Mark Gleadhill, Outbye Superintendent, Anglo American  INNOVATION PRESENTATIONS – Proudly Sponsored by Thiess

### Conference Program

### 3.20pm - 5.30pm INNOVATION PRESENTATIONS....continued

### Plastic Final Drive Cover - Reducing Handling Risk

Presenter: Rhys Markun, Asset Engineer - Component Rebuild Centre Brisbane Workshop, Thiess

### Test for Isolation' (TFI) Box

Presenters: Aaron Titmarsh, Load Fleet Planning & Execution Coordinator and Robert Trapp, Maintenance Superintendent, New Hope Coal – New Acland Coal

### Auger Mining Gas Management Innovation

Presenters: Dave Champion, HSET Manager, Peabody Millennium Mine and Bret Leisemann, Director, Coal Augering Services

### **AD45 Front Strut Handling Tool**

Presenters: Wayne Hilton, Michael Barbagallo, Jason Wernowski and Blain McCormack, George Fisher Mine, Mount Isa Mines a Glencore Company

### **Ventilation Model for Training**

Presenter: John Phillips, Ventilation Officer, Glencore Oaky North Mine

### T-Man Lighting Tower - Shining a Light on Safety

Presenter: Brian Edwards, Plant and Assets Operations Manager Australia and Pacific, Thiess

### Hydraulic Implement Pressure Release Station

Presenter: Paul Hutchins, Maintenance Technical Support and Continuous Improvement Advisor, New Hope Coal – West Moreton Operations

### **Continuous Miner Dust Suppression**

Presenters: Meagan Rose, Undergraduate Mechanical Engineer and Simon Burnett, Development Mechanical Coordinator, Anglo American Coal

5.30pm - 6.30pm	THE RESCUE STATION – Atrium Lobby Bar
5.30pm - 6.30pm	<b>WIMARQ Function – Poolside</b> Guest speaker Karen Alexander, Manager for Strategic Alliances - Mining, Hastings Deering
7.00pm - 10.30pm	INFORMAL DINNER AND CHARITY AUCTION in aid of A Miners Legacy Proudly Sponsored by uvex safety Australia
10.30pm	THE RESCUE STATION – Atrium Lobby Bar

### **▲ TUESDAY 8th AUGUST**

7.30am - 6.00pm	REGISTRATION - Pavilion Gallery
8.30am - 10.15am	PLENARY SESSIONS – Pavilion Ballroom  Master of Ceremonies Russell White, Managing Director, Driver Safety Australia
	KEYNOTE PRESENTATIONS - Proudly Sponsored by Peabody
0.45	
8.45am - 9.30am	Failures, Human Factors and the Role of Implicit Assumption Dr Sean Brady, Managing Director, Brady Heywood Pty Ltd
9.30am - 10.15am	· · · · · · · · · · · · · · · · · · ·

### 10.15am - 10.45am MORNING BREAK AND TRADE DISPLAYS - Pavilion Marquee Proudly Sponsored by Scott Safety

### 10.45am - 12.15pm CONCURRENT PAPERS

### **Pavilion Ballroom**

### **Southport Room 1**

### Coolangatta Rooms 1 and 2 **EXHIBITOR PRESENTATIONS**

### SHARING EXPERIENCES

Proudly Sponsored by **Anglo American** 

Chair: Heidi Roberts, Project Executive - Coal Mine Workers' Health Scheme. Department of Natural Resources and Mines

#### 10.45 - 11.15am

### **Petrie Dust Management**

**David Hartzer**, Quarries Support Manager, Boral Construction Materials

### 11.20 - 11.45am

### The Power of Collaboration-Strengthening Our Drug and **Alcohol Testing Regime**

Sean Milfull, General Manager, Peak Downs Mine, BHP Billiton Mitsubishi Alliance

#### 11.50 - 12.15pm

#### Diet and its Role in Mental and **Brain Health**

Professor Felice Jacka, Director, Food & Mood Centre, Deakin University

### SAFETY TRAINING WORKSHOP

Proudly Sponsored by **Resources Training Council** 

Facilitator: Gareth Quinn, Principal, Republic PR

#### 10.45 - 12.15pm

### **Better Training - Better Outcomes**

High quality training delivers better safety outcomes. The aim of this session is to examine current training outcomes - both the good and bad. We will discuss what is being done to improve consistency of delivery across the industry to ensure that we have safe, productive and efficient workforces.

Our presenters will outline their experiences as a job seeker, mine worker and from a company perspective. New Hope Coal is a finalist for Large Employer of the Year (New Acland) - Darling Downs South West and Medium Employer of the Year (Jeebropilly) – Metropolitan in the Queensland Regional Training Awards.

#### Presenters:

Alan Cotter, Job Seeker, Gladstone Queensland

Mark Grech, Trainee, Sedgman

Cameron Martin, Training Consultant, New Hope Coal

Jim Munro, Chief Executive Officer, Resources Training Council

These presentations will be followed by discussion and questions with the audience.

Proudly Sponsored by Thiess

Chair: Russell Albury, Chief Inspector of Mines (Coal), Department of Natural Resources and Mines

#### 10.45 - 12.15pm

### **ATOM Inventory Control Solutions**

Steve Sammut, Industrial Safety Expert, ATOM

### Calibrate Your Ass-O-Metre and Measure Haul Road **Friction**

Eric Tomicek, Sales Manager, Australian Diversified Engineering

Contractor Management Spreadsheets is so 1990's Mick Storch, Managing Director, 4PS Software

#### Should the Hierarchy of Hazard Controls be Turned Upside Down?

Christian Ferris, Dräger Segment & Strategy Manager Mining, Military & ADMs; & Dräger Marketing Manager, Classic Service

### High on the Job? - Drug Use in the Workplace

Lisa Took and Adam Michael, Business Development Managers, **Drug Detection Systems** 

### Changes to Glove Standards EN388 and EN374 -What Does It Mean To You?

Michael Riggall, Director Business Development and Product Management Gloves, uvex Safety Australia

### Lone Worker - Connected Safety Monitoring

Chris Russell, Product Manager, Industrial Safety and Gas, Thermo Fisher Scientific

### MSA Altair 4XR & MSA Connect App - Portable Gas **Detection with Bluetooth**

Alecca Norman, Queensland Technical Executive, MSA The Safety Company

#### 12.15pm - 1.15pm LUNCH AND TRADE DISPLAYS - Pavilion Lawn - Proudly Sponsored by BHP

### 1.15pm - 2.45pm

#### **Pavilion Ballroom**

### **Southport Room 1**

### **CONCURRENT PAPERS**

### **IMPACTS ON WORKPLACES**

Proudly Sponsored by OccPhyz Consulting

Chair: Liz Sanderson, Occupational Health Specialist, Anglo American

### 1.15 - 1.45pm

White Ribbon Australia: The Benefits of Workplace and **Community Built on Respect** and Equality

Simon Earle, White Ribbon Ambassador

#### 1.50 - 2.15pm

#### **Coal Mine Workers' Health** Scheme Reform

Heidi Roberts, Project Executive, Department of Natural Resources and Mines, Mine Safety and Health

### 2.20 - 2.45pm

### Fatigue - a Legal Perspective

Naomi L. Rogers, Honorary Professor, Specialist Fatique Consultant, University of Sydney and John Tate, Barrister, Crown Law

### **EXPLOSIVES ISSUES**

Proudly Sponsored by Rio Tinto

Chair: Jason Economidis, Vice President-Coal, Orica

### 1.15 - 1.45pm

### Security of Explosives

Noel Erichsen, Chief Inspector of Explosives, Department of Natural Resources and Mines

#### 1.50 - 2.15pm

### Porgera Mine Explosives Explosion - Sharing My Story

Andrew Clough, Vice President, Safety. Health and Environment. Peabody

### 2.20 - 2.45pm

### Learning from the Angellala **Creek Ammonium Nitrate** Vehicle Explosion

Ryan Brogden, Principal Inspector of Explosives, Department of Natural Resources and Mines

### **Southport Room 2 UNDERGROUND COAL**

### Proudly Sponsored by

**Board of Professional Engineers** of Queensland

Chair: Dr Snezana Bajic, Technical Services Manager, Simtars

### 1.15 - 1.45pm

### The Underground Installation of Tube Bundle - The **Underground Learnings**

John Lennon, ERZ Controller / Business Development Manager, Lennon Training

### 1.50 - 2.15pm

### Task Group 4 - Stories of the **Past and Present**

Nikky LaBranche, Principal Mining Engineer, Simtars

### 2.20 - 2.45pm

### 40 Years in Mining: My Story Martin Watkinson, Executive Mining

Engineer, Simtars

### **Southport Room 3** LEGAL LEARNINGS

### Proudly Sponsored by

Sparke Helmore Lawyers

Chair: Tony Howard, Head of Safety A&I, Minerals Australia, BHP

#### 1.15 - 1.45pm

### Is Voluntary the New Mandatory? The Application of **Guidance Material**

Matthew Smith, Partner and Laura Regan, Senior Associate, Sparke Helmore Lawyers

### 1.50 - 2.15pm

### Privacy - Too Much (Health and Safety) Information

Lucy Bochenek, Special, Counsel, Clyde & Co

2.45pm - 3.15pm

AFTERNOON BREAK AND TRADE DISPLAYS - Proudly Sponsored by LifeAid Pty Ltd

3.15pm - 5.15pm

**CONCURRENT PAPERS** 

### **Pavilion Ballroom**

### METALLIFEROUS

Proudly Sponsored by **Evolution Mining** 

Chair: Simon Pope, Mine Manager, Mount Isa Mines

#### 3.15 - 3.45pm

Underground Loader and Light Vehicle Interaction Emergency Drill

**Aaron Harrison,** Mine Manager, Ernest Henry Mining – a Glencore Company

### 3.50 - 4.15pm

Mines Rescue Skills Maintenance and Community Development Case Study

Simon Delander, General Manager, HSE & Risk, Evolution Mining

#### 4.20 - 4.45pm

Worksite Health and Wellbeing - More than Fitness Programs and Fat Workers. Future Proofing your Business and your People - An Evolution Mining Case Study

**Daniel Wakelin**, Occupational Physiologist, HBP Group

#### 4.50 - 5.15pm

Managing a High Risk Orepass Hang-up Using Hierarchy of Controls

**Aaron Harrison**, Mine Manager, Ernest Henry Mining – a Glencore Company

### **Southport Room 1**

### COMMUNICATION

Proudly Sponsored by **Croomo** 

Chair: Genevieve Hey, Health, Safety and Training Superintendent, Oaky Creek Surface Operations a Glencore Managed Operation

### 3.15 - 3.45pm

Instant Communication: Automatic Notifications: Accurate Reporting: Safer Operation

Larnie Mackay, Operations Scheduler, Anglo American – Moranbah North Mine

#### 3.50 - 4.15pm

Reflections of an Inspector on Communication and the Impact on Safety and Health

Damian Lee, Senior Inspector of Mines, Department of Natural Resources and Mines – Mine Safety and Health

### 4.20 - 4.45pm

Control Room Alarms – Stay Alert, Don't be Alarmed

Jennifer McIntosh, Coordinator Automation and Darryl Armstrong, Control Room Operator, BHP Billiton Mitsubishi Alliance

#### 4.50 - 5.15pm

The Psychology of Homeostasis - Why Smart Technology Makes Us Dumb and Dumber

**Lincoln Eldridge**, Managing Director, SAFEmap International

# SAFETY LEADERSHIP

### Proudly Sponsored by Board of Professional Engineers of Queensland

Chair: Clay Jacobson, Safety Superintendent, Anglo American

### 3.15 - 3.45pm

#### Geotechnical Hazards Awareness in Leica Mineops System

Jafnie Muhsin, Geotechnical Engineer and Stephanie Abell Geotechnical Officer, Anglo American Coal - Dawson Mine

### 3.50 - 4.15pm

### Creating a Culture of Care Through a Safety Field Leadership Program

Bobbie Foot, Head of Health, Safety and Environment and Ben Clarke, General Manager South Walker Creek, BHP Billiton Mitsubishi Alliance

#### 4.20 - 4.45pm

# What Aspects of Leadership are Important in Behavioural Programs?

**Cristian Sylvestre,** Managing Director, HabitSafe

### 4.50 - 5.15pm

Fatigue Management Case
Study from Cowal Gold Mine
Simon Polandor Gonord Manage

Simon Delander, General Manager, HSE & Risk, Evolution Mining

### **Southport Room 3**

#### DNRM

Proudly Sponsored by Corporate Bodies International

Chair: Dr Gareth Kennedy, Director, Mine Safety Technology Research Centre, Simtars

#### 3.15 - 3.45pm

Respirable Dust Exposure Database - Assessing Trends in Queensland's Coal Mines

Eliza Gill, Occupational Hygienst, DNRM, Mone Safety and Health

#### 3.50 - 4.15pm

Occupational Health Thresholds for Mine Sites: The Status of Respirable Crystalline Silica and Lead Hazard Regulation

Mark Desira, Senior Principal Occupational Hygienist, DNRM, Mine Safety and Health

### 4.20 - 4.45pm

### Intrinsically Safe Circuit Issue

Neville Atkinson, Inspector of Mines - Electrical, DNRM, Mine Safety and Health

#### 4.50 - 5.15pm

Managing Contractors in Mining - Understanding the Factors Underlying the Safety Statistics

**Dominque Nelson**, Senior Environmental Scientist, Simtars

### 5.00pm - 6.30pm THE RESCUE STATION - Atrium Bar

### 6.45pm - 11.00pm CONFERENCE DINNER and INNOVATION AND HEALTH PROGRAM AWARDS

- Pavilion Ballroom

Proudly Sponsored by GLENCORE

### 6.45pm - 7.25pm PRE-DINNER DRINKS - Pavilion Gallery

### 7.25pm - 11.00pm CONFERENCE DINNER - Pavilion Ballroom

### 11pm THE RESCUE STATION – Atrium Lobby Bar

The presenters, topics and times are correct at the time of printing and, in the event of unforeseen circumstances, the Conference Committee reserves the right to alter or delete items from the program.

### Master of Ceremonies - Proudly Sponsored by uvex safety Australia



### **Russell White**

Russell's experience in the road safety field is unique. His career spans more than 25 years and encompasses expertise across a broad range of road safety matters. He is widely regarded as one of Australia's leading road safety advocates and media commentators, with regular appearances on Channel 7's Sunrise program. The driving force behind his commitment to reducing road trauma is based around three key factors: Advocacy, Research and Education.

Russell is the Managing Director of Driver Safety Australia. In addition, he is also the Founder and CEO of the Australian Road Safety Foundation. The Foundation operates Australia's only national community based road safety campaign – 'Fatality Free Friday'. His vision, innovation and long term experience makes him a "one of kind" in the road safety industry.

### Facilitator - Sunday Session



### Virginia Trioli (Facilitator of Sunday Session)

Two-time Walkley Award winner, Virginia Trioli is one of Australia's best-known journalists, with a formidable reputation as a television anchor, radio presenter, writer and commentator. She is much sought-after as a speaker and MC, and combines a rigorous interviewing style with an often wicked sense of humor.

Virginia, is an honours graduate in Fine Arts from the University of Melbourne and La Trobe University, and in 1996 published "Generation F", her celebrated response to Helen Garner's 'First Stone'.

In 1995 she won Australian journalism's highest honour, the Walkley Award for her business reporting and in 2001 Virginia won a second Walkley for her landmark interview with the former Defence Minister, Peter Reith, over the notorious Children Overboard issue. In 1999 she won the Melbourne Press Club's Best Columnist award, The Quill. In 2006 she won Broadcaster of the Year at the ABC Local Radio Awards.

Virginia has held senior positions at the Age newspaper and the Bulletin magazine. For eight years she hosted the Drive Program on 774 ABC Melbourne, and the Morning Program on 702 ABC Sydney. She has been the host of ABC TV's premiere news and current affairs program, Lateline, also Artscape and Sunday Arts. She is a regular fill-in host on Q and A.

She currently anchors ABC News Breakfast on ABC 1 and ABC News 24. Virginia is married with three step-children, a three year old, and one chocolate Labrador.



### **Dr Sean Brady**

Sean is a forensic engineer that specialises in identifying the cause of structural engineering failures.

He is a Board Member of the Society of Construction Law Australia and a Member of the Singapore International Mediation Centre's panel of experts. He is a practising Chartered Professional Engineer, a Member of the Editorial Board of the ASCE Journal of Performance of Constructed Facilities and the ICE Forensic Engineering Journal.

He has published internationally on forensics for both engineering and legal audiences, and is a visiting lecturer at Queensland University of Technology's Business School and the University of Melbourne's Law School.



### Kate du Preez

Kate was appointed as Queensland's first female Commissioner for Mine Safety and Health in June 2016 and brings to the role over 16 years' experience in operational mines in South Africa and Queensland. When Kate commenced working as a young mining engineer, it was illegal for women to work underground. She not only worked underground, Kate went on to become the first woman to hold a mine manager's certificate of competency in South Africa.

Kate's role is to advise the Minister for Natural Resources and Mines on mine safety and health matters; chair the Coal Mining Safety and Health Advisory Committee and the Mine Safety and Health

Advisory Committee; monitor and report to the Minister and Parliament on the administration of the provisions about safety and health under the Coal Mining Safety and Health Act 1999 and Mining and Quarrying Safety and Health Act 1999 administered by DNRM.

She also performs other functions given to the Commissioner under the provisions of the Acts.

### **Keynote Presenters**



### **Tony Forster**

Tony (MSc. CEng. FIMMM. FIQ) has 45 years' industry experience from coal face worker to colliery manager and chief inspector. Joining the United Kingdom HSE in 1988, Tony experienced a diverse array of duty holder standards and an eclectic range of regulatory styles.

In 2013 Tony accepted the role of Chief Inspector of Mines for New Zealand. Credited with delivering an effective Principal Hazard intervention strategy, Tony restored trust in what was a discredited regulator blamed for an explosion that claimed the lives of 29 men.

In 2016, Tony moved to Australia to advise the NSW Department of Industry on a restructure of the Mines Safety Unit to align its capability with a bespoke critical risk control model.



### **Matina Jewell**

Major Matina Jewell (now retired) grew up in the hinterland of Byron Bay and after joining the Army at age 17, served on military and peacekeeping operations around the world.

During her 15-year military career:

- · Matina earned eight war medals,
- · Completed the physically demanding Navy divers course,
- · Served on operations with the elite American Navy Seals,
- · Boarded smuggler ships in the Arabian Gulf, and eventually
- · Was posted as a peacekeeper with the United Nations in Syria and Lebanon.

Matina was featured on the ABC's Australian Story, is a best-selling author and has served on the National Mental Health Forum and the Prime Minister's Advisory Council where she championed positive change for younger veterans. Among her many honorary roles, Matina is a founding Ambassador for 'Project Thankful', a movement partnered with the United Nations to help empower women and children globally.



### **Mark Raguse**

Mark is an Organiser at the Australian Workers' Union and has been a practitioner of industrial relations and workplace health and safety for over 20 years. He has negotiated and advocated for workers across a broad range of industries including metalliferous mining. He has sat on the Ministerial Resources Roundtable, the Safety Leadership Expert Reference Group, the Queensland Industrial Relations Legislative Reform Reference Group, the Mining Health and Safety Advisory Committee and is currently a member on the Health and Community Services Industry Safety Standing Committee and Chair of the Retail and Wholesale Sector Industry Safety Standing Committee.

He believes that improving safety and reducing injuries in workplaces requires genuine collaboration and a learning culture between workers, their representatives and management.



### **Daniel Rockhouse**

Daniel was working in the Pike River Mine when the mine explosion occurred on November 19, 2010. Daniel managed to drag himself and another semi-conscious miner, Russell Smith, out of the mine to safety; the pair are the only survivors of the disaster. Daniel received a Medal from New Zealand Governor-General Sir Jerry Mateparae at Government House for his bravery.

Twenty-nine workmates lost their lives at Pike River in the explosion including Daniel's brother Ben. For the first couple of years after the disaster Daniel struggled mentally, but had learned to cope with it. "There's no point in dwelling on it, it is what it is and it's happened and you've just got to move forward." In this presentation, I 'Share My Story'.



#### Lee Shearer APM

Lee heads the NSW Resources Regulator responsible for compliance and enforcement functions across NSW mining and energy sectors.

The primary focus of the NSW Resources Regulator is on compliance activities within the Resources and Energy sectors, including: Compliance with the Mining Act. Regulating safety and health performance in NSW Mines.

Lee is a highly experienced regulator with a majority of her career spent in the NSW Police Force performing operational roles including Director for Legal Services and Assistant Commissioner,

Commander Northern Region Local Area. Lee has led large operational and legal teams to deliver regulatory outcomes to the community. Lee is a Conjoint Professor of Practice with the University of Newcastle Faculty of Business and Law.

Exhibitor	Booth No.	Exhibitor	Booth No.
4cRisk	18	GrapiVit	9
4PS Software	24	Health-e Mine University of Newcastle	8
Acu-Vib Electronic	27	Kenelec Scientific	58
A Miners Legacy	26	KINNECT	36
Air-Met Scientific	23	Lear Siegler Australasia	43
Alcohol and Other Drugs Service	3a	LifeAid Pty Ltd	30
Alere	52	MATES in Mining	4
ATOM	33	Mideco	44 - 45
Australian Diversified Engineering	28 - 29	MinRes Training Institute	41
<b>Board of Professional Engineers of Que</b>	ensland 34	NAUTITECH	13
Breathalyser Sales & Service	42	OccPhyz Consulting	10
Breathe-Safe	57	Pathtech	55
Caterpillar	39	Queensland Mines Rescue Service	61
Cirlock Pty Ltd	49	Quitline (13QUIT)	3b
CleanSpace	59	Resources Training Council	53
Corporate Bodies International	32	Rural and Remote Mental Health	5
CQ Rescue Health Service	1	Safety Equipment Australia	54
Croomo	51	Safety Mate	19
Danger Sun Overhead	7	Scott Safety	48
Department of Natural Resources and N	Nines 16 - 17	Simtars	22
Diabetes Queensland – My health for life	fe 2	Smokeshield Australia	46
Draeger	25	Steel Blue	60
Driver Safety Australia	47	Stotts	40
Falck	14	Thermo Fisher Scientific	37
GasTech Australia	15	Thompson Safety	56
GCG Health Safety and Hygiene	31	Workplace Health and Safety Queensla	nd 6
GLENCORE Chat Room	11 - 12	uvex safety Australia	20 - 21
Global Road Technology	38		

### GLENCORE Chat Room 'Sharing MY story' - Pavilion Marquee

We invite you to visit the Chat Room which is located in Booths 11 and 12. Here some very special people will share 'My Story' with delegates during the Morning and Afternoon Breaks and Lunches.

**Ron McKenna** – A true Legend of this Mining Industry in Queensland. Ron will be sharing highlights from his 65 years in the Mining Industry. Ron at 81 is still consulting to industry – an amazing testament to the value of his many years experience across many sectors of the industry.

**Anna Meares** – A CHAMPION AND A TRUE SPORTSWOMAN Anna Meares is one of Australia's favourite sporting heroes and one of the most talented athletes in the world. She is a 3-time Olympian, 2-time Olympic champion with 5 Olympic medals (Gold and Silver – London 2012, Silver – Beijing 2008, and Gold and Bronze - Athens 2004).

**Daniel Rockhouse - Pike River revisited** – A Personal Perspective. Daniel was working in the Pike River Mine when the explosion occurred on November 19, 2010. Daniel managed to drag himself and another miner, Russell Smith to safety. The pair being the only survivors of this disaster. Daniel will be sharing more of 'His Story' here in the Chat Room.

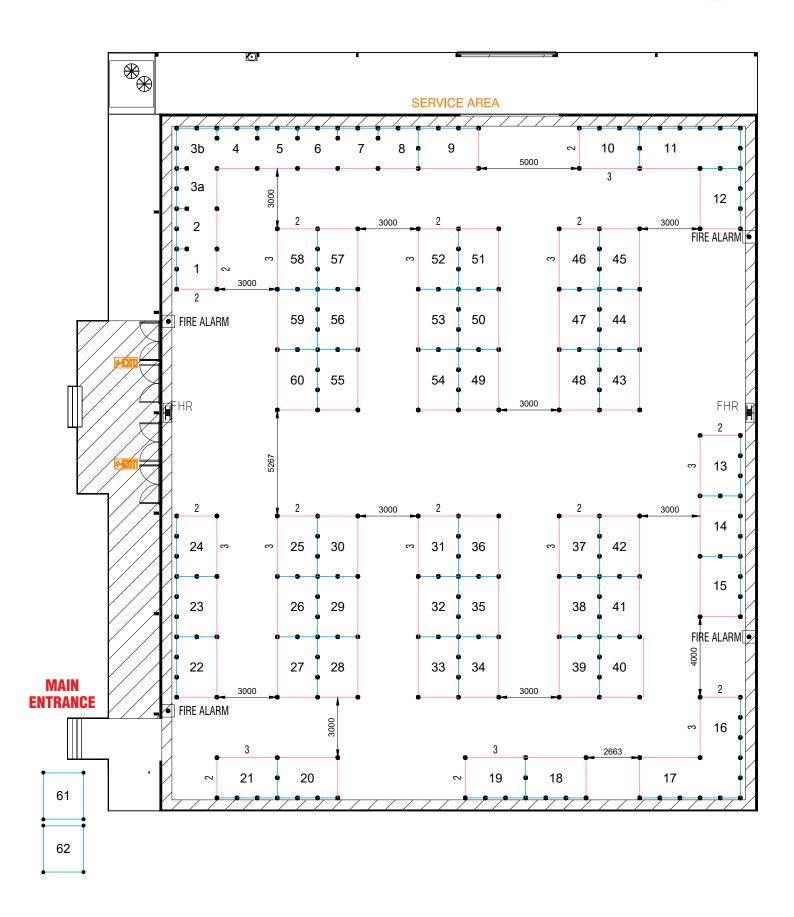
**Simtars** – Simtars Response to Pike River Disaster - Martin Watkinson, Lauren Forrester and Sean Muller. In November 2010 mobilised a team of four experts and took two micro gas chromatographs to provide gas analysis to assist the incident management team in their decision-making process. A tube bundle gas monitoring system was also established during this period. A total of 14 personnel were involved in the response.

**Scott Eipper** – Owner, Nature 4 You expands on his topic of Snake Safety for the Workplace - Safety and Solutions. As wildlife demonstrators and consultants we want to share our knowledge with you as well as allowing you to get up close and personal with our fascinating reptilian friends. Visit us in the Chat Room and also in the Pavilion Gallery.

**Murray Hartin** – Bush Poet and raconteur "Murray Hartin stands in the great tradition of Henry Lawson, Banjo Paterson and every bastard who's ever leaned up against a bar and told a yarn or recited some Australian poetry. He's a cross between an Australian original, a National Treasure and a colourful swaggie who lost his way and finished up in the present. I can't recommend him highly enough." Peter FitzSimons Author

**Jon Noble** - Glencore's Clermont Open Cut mine in the Bowen Basin is the first in Queensland to achieve accreditation for the Mates in Mining initiative, a peer-based support program that addresses mental health and suicide. Based on the Mates in Construction program, Mates in Mining empowers workers to offer help when a mate is doing it tough. As Clermont's Health Safety and Training Manager, Jon, will offer insights into this highly successful program.





**4PS Software** Booth 24

### IMPROVE EFFICIENCY AND LOWER COSTS

4PS Software is accessible with internet connection. Real-time information is always up-to-date and kept in one central location, eliminating the need for multiple systems, licences and archaic spreadsheets.

4PS Software:

- Rostering of people and plant
- Pre-notifications of expiries
- Store training and compliance records
- Real-time information matrix
- Role based training

4PS Software is innovative and utilise cutting edge technology to ensure you can manage your business' safety and compliance more effectively and efficiently than ever before.

Contact: Mick Storch, Compliance System Expert M: 0417 789 681

### **4cRisk Occupational Health**

**Booth 18** 

4cRisk is an Occupational Health provider, working with clients to support mining and construction projects with a broad range of occupational focused medical services. To find out more about our range of services and check out our new Heat Stress training video please call in to our staff at Booth 18, we look forward to meeting you.

Contact: Di A-Izzeddin, Director M: 0457 406 318

### **Acu-Vib Electronics**

Booth 27

We are an Australian based company established in 1988. For the past twenty-eight years Acu-Vib Electronics has Specialised in Sales, Calibrations, Hire and Repairs of high quality electronic test equipment for use, in the fields of Acoustics and Vibrations, Occupational Health and Safety, Environmental, Research and Development, just to name a few.

The equipment we will have on display will be instruments for Sound and Vibration Monitoring.

We are a fully qualified, NATA accredited laboratory in the field of Acoustics and Vibration. We certify (all brands) Sound Level Meters, Calibrators, Microphones, Accelerometers, Vibration Meters, etc

We offer a broad range of repair services. Many of the companies' laboratory staff and technicians were trained in calibration, research and development or other highly specialized fields.

Contact: John Gajardo-Cordova, Sales Director M: 0402 722 709 Alere Booth 52

Knowing now matters<sup>TM</sup>, Alere delivers rapid, reliable drugs of abuse screening. As the #1 global provider of rapid point of care tests, Alere manufactures toxicology products for pre-employment, workplace, criminal justice and clinical testing. Products range from urine and oral fluid devices through to laboratory assays.

The Alere DDS2<sup>TM</sup> is our premium, ultraportable oral fluid drug screening analyser for workplace and law enforcement. The Alere Toxwipe<sup>TM</sup> offers a sensitive, buffer driven standalone solution for oral fluid. Our Immunalysis product line provides a comprehensive solution for laboratory drug screening including a broad range of synthetic cannabis and esoteric screens.

Contact: Ellie Dianati, National Account Manager M: 0434 076 218

### Alcohol and Other Drugs Service (AODS)

**Booth 3a** 

Gold Coast Alcohol and Other Drugs Service (AODS) offer a supportive and confidential service for individuals wanting to discuss their alcohol and drug use. It is a safe and non-judgemental space where individuals can openly speak with professionals and receive information, guidance and treatment. Our service offers a range of services across various locations including assessment and referral, counselling and support, group programs, outpatient detox, opioid replacement therapy. All our staff are here to help and support you.

Contact: Suzi Orschulok, A/Service Development and Research Co-ordinator M: 0476 851 609

### **Air-Met Scientific**

Booth 23

Established in 1984, Air-Met Scientific is Australia's market leader in the supply, service and rental of occupational health, safety and environmental monitoring equipment.

With 6 offices nationwide, Air-Met delivers world leading technology for a range of applications including gas detection, air sampling, environmental monitoring, noise monitoring and more from international and local suppliers such as Industrial Scientific Corporation, MSA Safety, 3M, Ion Science, SKC Inc and Aeroqual.

Contact: Randall Kelly, Territory Manager Queensland M: 0407 023 615



ATOM Booth 33

ATOM is Australia's fastest growing industrial and safety supplier, with over 40 years' experience supplying to industry. Our warehouses around Australia mean the ATOM team is at your disposal and empowered to do whatever it takes to get you what you need. Plus, ATOM Inventory Control Service's Customisable industrial vending machines are available to help reduce your consumption, track your inventory and increase productivity. Visit ATOM's stand today and find out why it's simple @ ATOM.

Contact: Melissa Cawley, Marketing Coordinator M: 0458 095 206

### **A Miners Legacy**

**Booth 26** 

A Miners Legacy is a registered charity to provide support guidance and assistance to families affected by mining fatalities.

The information from A Miners Legacy comes from families who have experienced the tragic loss of their loved one.

We dream of the day when there is no need for A Miners Legacy, when every mine worker returns home safe every day. Until then, we need your support to support the families of our lost miners.

Contact: Mark Parcell, Founder and Director M: 0427 331 133

### Australian Diversified Engineering (ADE)

Booths 28 and 29

AADE utilise proven technology used by the Queensland Police Force and Department of Transport and Main Roads for sealed roads to provide a quantitative method of measuring and classifying road friction performance in the mining industry.

Learn how guessing friction could be putting your operators at risk and how simple it is to measure the risk and then manage the risk. Discover how sophisticated water trucks that use ADE Spray, better manage safety, reduce fugitive dust emissions and reduce cost.

Contact: Eric Tomicek, Global Sales Manager M: 0408 865 430



## Breathalyser Sales & Service Pty Ltd

Booth 42

Australia's oldest supplier of drug and alcohol testing devices only supplies the most advanced, efficient, accurate and reliable products on the market. All products comply with relevant Australian Standards ensuring the accuracy of their products. Their equipment is used by all levels of government and the private sector, including: local councils, roads authorities and associations, law enforcement, corrective services, public health, public and private utilities, the mining, transport and shipping industries, pubs and clubs, sporting associations and the personal market.

Contact: Rob Colgan, Queensland State Manager M: 0429 782 586

## Breathe-Safe Intelligent HEPA Booth 57 Engineers of Queensland (BPEQ)

Fresh Air-HEPA Cabin Pressuriser-Filtration Manufacturer for Fixed and Mobile Plant Equipment to Control Respirable Mine Dust at Mine Sites.

- Clean Air Technology for Mining/Construction Equipment
- Fresh air HEPA Filtration / Pressurisation.
- HEPA Filters to Control Respirable Particles
- Digital Pressure Gauge-Controller with Warnings/ Alerts (DPG-C)
- Remote Monitoring 24/7
- One stop supplier HEPA Pressuriser, HEPA Return Air, DPG-C and Cabin Sealing.
- Onsite Installation and Training
- Activated Carbon Filter (Toxic gas)
- Custom Air Conditioning Design, Upgrades and Installation
- Onsite HEPA Filter Testing and Auditing

Contact: Javier Riveros, Sales & Operations Manager M: 0438 665 366

# Board of Professional Board (BPEQ)

Booth 34

BPEQ is Queensland's engineering regulator, responsible for the administration of the Professional Engineers Act 2002 (Qld) (the PE Act) and the registered professional engineer of Queensland (RPEQ) system.

The PE Act requires registration for any person providing a professional engineering service in Queensland or for Queensland.

BPEQ currently registers 12,000 engineers from Queensland, interstate and overseas.

BPEQ is also charged with investigating and prosecuting unsatisfactory professional conduct and breaches of the PE Act.

Contact: Nathaniel Tunney, Communications and Media Adviser T: 07 3198 0004 Caterpillar

No matter what industry you work in or what equipment you use, your first priority is the safety of your employees. Caterpillar agrees, and we're committed to helping you make sure everyone who works in, on or around equipment comes home safe every day. Discover how to achieve productivity gains by engaging employees in safety and integrating technology plus, reduce fatigue and distraction risk with technologies that enable you to see, mitigate and manage the risk at the Caterpillar hooth

Contact: Simone Smyth, Global Marketing Lead, Caterpillar Safety Services, Asia Pacific M: 0413 412 074

### **Cirlock Pty Ltd**

Booth 49

Booth 39

### Cirlock Lockout / Tagout Equipment.

Cirlock is an Australian company which offers a broad range of durable, easy-to-us lockout devices suitable for all types of energy sources. Cirlock have been manufacturing and supplying Lockout / Tagout equipment to Australian and overseas companies since 1992, including the well-known Aluminium CIRLOCK Lockout System for Distribution Boards.

Contact: Nicole Fietz, Sales Manager M: 0499 294 669

### CleanSpace

**Booth 59** 

CleanSpace respirators (NIOSH approved) deliver significant safety and compliance benefits over traditional masks and are sold in over 20 countries.

Established in 2009 by a world class medical device engineering team with a vision to make respiratory protection wearable and easy to use. Designed and built with the same rigour as in the medical industry, CleanSpace respirators are safe and reliable. Our dedication to product quality, training and customer service is reflected throughout the business.

Contact: Maria Fox, Technical Sales Manager Asia Pacific M: 0437 721 831

### **Corporate Bodies International Booth 32**

We have been delivering workplace health, wellbeing and injury prevention services to the Queensland mining industry for the past 16 years. No matter what your organisation's health, wellbeing or injury prevention goals are, our staff of university qualified health professionals can create a flexible, tailored and evidence based program that will meet your goals. Drop by our booth to chat with our friendly team of health professionals about the results we are achieving with other similar organisations.

Contact: Zoe Cole, QLD State Manager M: 0406 319 867 Croomo Booth 51

We help our clients drive performance with eLearning experiences that stick. We believe that eLearning can be so much more than a tick in the box for corporate compliance. At Croomo, we partner with our clients to discover innovative ways to address critical risks and catastrophic hazards by engaging entire workforces and communities. We're an award-winning training development agency that works with you every step of the way.

Contact: Terry Crick, Business Development Manager M: 0499 889 485

### **Danger Sun Overhead**

Booth 7

DSO is an education program that promotes the prevention and early detection of skin cancers in high risk outdoor industries across Australia. Since its formation in 2010 it has provided sun safety education to over 35,000 workshop attendees in workplaces nationwide. The program is run through The Karlee Adams Foundation and their education pillar in the hopes of reducing the impact of melanoma and all skin cancers on Australians.

Contact: Jo Crotty, Education Program Manager M: 0418 728 347

### Department of Natural Resources and Mines

**Booths 16 and 17** 

The Department of Natural Resources and Mines (DNRM) oversees a regulatory framework and compliance program to protect the safety and health of mine workers in Queensland, while also advising, mentoring and assisting industry to build capacity in managing safety and health risks and hazards.

Our mission at this conference is promoting zero harm to prevent disasters, fatalities, lost-time injuries and occupational disease in the resources industry. We share our expertise and learnings from our investigations to improve safety and health outcomes for mine workers.

Following the re-identification of coal workers' pneumoconiosis, DNRM is leading broad reforms to better protect mine workers from respirable dust diseases across all industry sectors.

The work we do through partnerships nationally and abroad helps us deliver vital research, engineering solutions, scientific and training services through the Safety and Mines Testing and Research Station (Simtars) division.

Contact: Lilly Patellis, Senior Communications Officer, Corporate Communication T: 07 3199 8257

### **Diabetes Queensland**

### Booth 2

- My health for life

My health for life is a new lifestyle modification program designed to assist people at high risk of chronic conditions get their health back on track. Tailored to meet individual needs and delivered in your community or workplace by local health professionals, My health for life takes a different approach to getting healthy. So why not visit us at stand 2 in the health hub and find out if this free program is right for you or your organisation!

Contact: Tegan McIntosh, Program Design and Support Officer T: 07 3506 0948

Dräger

Booth 25

Your Safety, Our Solutions - perfectly linked together

For generations, miners have depended on Dräger safety equipment to protect lives. Our safety solutions are dedicated to the improvement of mine safety – beginning with respiratory protection and gas detectors for everyday workplace safety to self-contained self-rescuers and refuge shelters for emergency situations.

Visit the Dräger booth to learn more about our solutions for occupational health and safety, ventilation and plant safety, maintenance and training, as well as emergency preparedness and response.

Contact: Christian Ferris, Segment and Strategy Manager M: 0400 334 546

### **Driver Safety Australia**

Booth 47

Driver Safety Australia is a leading driver safety training provider. It provides a diverse range of products and services including:

- Driver Risk Assessments
- On-line Driver Training Courses
- Driving Clinics
- Driver Training Simulators
- Road Safety Content Development and Video Production
- In-Vehicle Training Courses
- Road Safety Consultancy

We operate nationally and offer a range of educational solutions including driver risk assessment, on-line courses, in-car driver training programs and clinics.

Contact: Russell White, Managing Director M: 0419 866 165



Falck Booth 14

Our Core Business covers your Critical Services.

Falck's core service is the management and delivery of turnkey emergency response, medical, security, training and fire protection services and our solutions are tailor made to our client's specific needs. Our integrated solution means a strong focus on risk prevention and minimization and we can deliver the related compliance and governance for all our services. Falck provide a high-quality solution where we take full responsibility for the management of the full service including people, vehicles, equipment, facilities, systems, operational procedures and governance.

Services Include: Emergency Services; Medical Services; Security Services; Fire Protection Services; Hi End Hi Volume Emergency Response Services; Training and Fleet and Equipment.

Contact: Mick O'Byrne, Technical Services Manager M: 0422 719 962

### **GasTech Australia**

Booth 15

As Australian's centre for gas detection and emissions monitoring, GasTech Australia is back again this year with their extensive range of portable and fixed gas detection along with real time gas and particle emissions analysers. See the latest in wireless gas detection from Industrial Scientific's LENS capable range or the extensive series of Honeywell brands like RAE Systems, BW and Sperian. See the TSI Nanoparticle Emissions Analyser in the flesh for the latest in DPM analysis technology delivering a particle count.

Contact: Peter Lowe, Regional Sales Manager M: 0488 058 060

### GCG Health Safety & Hygiene

Booth 31

GCG provides many Queensland Mines with occupational hygiene help. 2017 has been a year in which dust is receiving more focus than ever, and we have modified our services to suit the needs of mining in Queensland. This year our booth will be staffed by our discipline leader for Occupational Hygiene – Dustin Bennett, and our leader for WHS Brett Jones. In true GCG style, we will have some of our latest innovations and works to share with you.

Contact: Dustin Bennett. Director M: 0416 193 842

### GLENCORE Chat Room Sharing MY story

**Booths 11 and 12** 

We invite you to visit the Chat Room which is located in Booths 11 and 12. Here some very special people will share 'My Story' with delegates during the Morning and Afternoon Breaks and Lunches. Please refer to Page 14 for details of these presentations.

### Global Road Technology (GRT) Booth 38

An Australian owned manufacturing and engineering company focussed on the development and provision of safe, environmentally-friendly products for the operation of cost effective, dust free, and resilient infrastructure and plant across the resources sector.

Main Product Groups:

- 1. Dust Control
- 2. Erosion & Sedimentation Control
- 3. Agricultural, Resource, Site & Plant Management
- 4. Civil Construction

GRT is ISO9001 accredited and with an outcome focussed R&D program, able to deliver industry leading, cutting edge products plus development and design services.

Contact: Daniel Grundy, General Manager M: 0427 256 885

GrapiVit Booth 9

Filling out a Hazard Reports is an important factor in preventing accidents, injuries and illnesses.

But what prevents you from lethargy, headaches and distraction?

Drink before you're thirsty!
We help people
to increase their health and wellbeing
by changing only one thing.
We encourage them to:
"Drink more water".

This healthier lifestyle not only changes your body it changes your mind and your mood. Water is the elixir of life. We make drinking water a flavoursome experience.

Contact: Roy Korczewski, Director M: 0431 439 754



### **Health-e Mine Uni of Newcastle**

**Booth 8** 

There is no health, without mental health. Workplaces are an important setting for action, with well co-ordinated programs associated with significant improvements in employee mental health and well-being, productivity and safety. Reseachers from the University of Newcastle and the Hunter Institute of Mental Health will showcase some of the innovative approaches to enhancing mental health within the mining industry.

Find out more by visiting their booth and taking part in psychological and physical challenges for your chance to win a Fitbit.

Contact: Ross Tynan, Research Lead, Hunter Institute of Mental Health M: 0409 532 243

### **Kenelec Scientific**

**Booth 58** 

Established in 1962, Kenelec Scientific is one of Australia's leading scientific and environmental technology companies. Over many years, we have built up a strong team, and our extensive experience makes us a one-stop shop for sales, rental, service, training and calibration. We provide a wide range of both off-the-shelf equipment and custom monitoring solutions for detecting and limiting exposure to coal dust, silica dust, diesel engine exhaust and other airborne pollutants that can impact worker health in a mine site.

Contact: Paul Montague, Sales Engineer M: 0414 890 730

### KINNECT

Booth 36

KINNECT was established in 1996 as a provider of Occupational Injury Prevention, Injury Management, Health, Medical & Training services. KINNECT has since grown to become the leading privately owned Occupational Health Company servicing Australia. We are a multi-disciplinary team of medical and allied health professionals who are passionate about making people at work Healthy, Safe and Productive. Named 9th Best Place to Work in Australia in 2016, we are a company driven by culture as we understand that a positive culture ensures sustainable outcomes for our clients.

Contact: Clark Hopley, Director M: 0407 611 037



### Lear Siegler Australasia (LSA) Booth 43

We are the exclusive distributor and authorized service center of the PDM3700 (TEOM) Direct mass measurement, and pDR1000 Utilizing single beam nephelometry.

The pDR-1000AN incorporates light-scattering to produce optimal particle response for high correlation with standard gravimetric measurements.

The PDM3700 has revolutionized the efforts to Protecting miner health. Real-time, accurate coal mine dust measurements are critical toward providing data to the miner to permit them to take appropriate action to minimize their exposure to coal dust. The Thermo Scientific™ PDM3700 Personal Dust Monitor ensures the shift-average respirable dust exposure does not exceed regulatory limits, the PDM3700 monitor is the first line of defence in preventing devastating long-term health effects such as Black Lung Disease. It is unique, accurate and reliable.

Contact: Peter Phaedonos, Managing Director M: 0408 800 621

### LifeAid Pty Ltd

**Booth 30** 

LifeAid Pty Ltd was founded in 1987 and is an innovative and dynamic privately owned Australian company providing quality integrated or stand-alone services that include:

- Medical Services and Paramedic Emergency Care
- Fire and Rescue services and solutions
- Safety and Emergency Service Consultancy Support
- Training in Safety, Medical, First Aid and Fire Rescue Skills
- Vehicles, equipment and all supplies to suit

LifeAid is a recognised supplier of services to industry such as Mining, Oil, Gas, Construction as well as Department of Environment, Department of Defence and Isaac Regional Council.

Contact: Alan Close, Managing Director M: 0417 519 762

### **MATES in Mining**

Booth 4

MATES in Mining is an independent charity established to reduce the level of suicide among Australian mining workers. We are based on the simple idea that "suicide is everyone's business" and that if the mining industry in Australia is to improve the mental health and wellbeing of workers and to reduce suicide then it cannot be left to the mental health professionals alone, but rather everyone in the industry (workers, employees, unions and companies) must all play their part.

Contact: Andrew McMahon, Project Manager M: 0409 506 020

### Mideco

Booths 44 and 45

Mideco provide dust control products and solutions for mines, quarries and any commercial environment.

We are an Australian owned company and have been operating since 1950. With over sixty years of successful dust collection projects behind us, **Mideco** is well placed to solve even your most challenging dust collection and extraction system problems. On display at the conference, the **Bat Booth** uses nothing but pure air to blow dust off worker's contaminated clothing, making your workplace safer for everyone. It's the hardest working 12 seconds you'll ever see. Come and have a look!

Contact: Olha Lyeskakova, Product Manager M: 0438 859 178

### **MinRes Training Institute**

Booth 41

MinRes Training Institute is a registered training organisation specialising in the extractive industries.

We consult, contextualise and deliver training materials to suit your mine and align to your policies and procedures. We deliver accredited and non-accredited courses within your site and can develop or map your internal documents to meet national accredited standards.

At MinRes we are there to support you through your process of having your training and safety management system streamlined, complaint and user friendly.

Contact: Julie Warren, Chief Executive Officer, T:1800 646 737

### OccPhyz Consulting

Booth 10

OccPhyz is an Australian-owned company of leading specialist Occupational and Environmental Physicians. We provide expert independent medical assessments and advice to insurers, employers, government, legal representatives and the community. We also provide a range of occupational health services to assist employers with managing the health risks of their employees. Our assessments are conducted by specialist Occupational Physicians, who are highly regarded for their professional, unbiased and holistic medical opinion. We provide services throughout Queensland and Northern New South Wales.

Contact: Karen Cunneen, Practice Manager T: 07 3348 9611



### **Nautitech Mining Systems**

Booth 13

Devoted to the design and manufacture of products that improve safety and productivity in hazardous areas. Our key products dominate the markets they are in and include methane safety systems, broadband powerline modems and thermal or HD cameras. Visit us to see the Methane Master, SPITFIRE range, I.S. Cubex system, 7" and 10" Displays, and the newest addition to our range, the powerful WINGMAN. Check out the buzz at the Nautitech Underground Internet of Things (UIoT) at Booth #13.

Contact: Mitch Barnes, Business Development Manager M: 0488 221 031

### **Pathtech Pty Ltd**

Booth 55

As a distributor established in the Australian market for over 30 years, Pathtech has operated as an innovative and successful supplier of drug and alcohol detection, scientific and forensic products.

Pathtech offer a range of saliva and urine drug detection screening devices and alcohol breathalysers which are designed and manufactured in strict compliance to the highest clinical standards. Pathtech is Australia's largest supplier of saliva based detection devices and is a trusted choice for a wide range of Australian businesses.

Contact: Lisa Took, Business Development Manager M: 0413 157 112

### Queensland Mines Rescue Service (QMRS)

Booth 61

QMRS is the Accredited Corporation for the Queensland coal industry providing training, equipment and resources to assist underground coal mines achieve a mines rescue and a mine Inertisation capability.

In addition, QMRS provides ERT training to surface operations and mine emergency management training to all mines on a fee for service basis.

Our display will highlight underground, surface and mine emergency management training activities available through QMRS.

Contact: David Carey, Chief Executive Officer M: 0428 014 769

### Quitline (13QUIT)

**Booth 3b** 

Quitline (13 7848) is a confidential, state-wide telephone service dedicated to helping Queenslanders quit smoking, 7am-10pm, 7 days a week. Quitline offers a free workplace quit smoking program to organisations in the mining industry, in Queensland. This free program provides support to employees who smoke. Employees who join the program receive; tailored support calls, free nicotine replacement therapy products (patches, gum or lozenges), and quit resources. For more information visit the Quitline booth, workplaces.healthier.qld.gov.au or call 13QUIT (13 7848).

Contact: Eva James, Health Promotion Officer T:13 7848

### **Resources Training Council**

Booth 53

Resources Training Council is the national peak and representative body for resources training in Australia founded in 2011.

Resources Training Council is a not-for-profit association funded solely by our members. We share leading practice, encourage innovation and drive operational improvements, efficiencies and effectiveness to ensure that the industry has safe, productive workers.

Our network shares close links to government at all levels, industry regulators, service providers, and enterprises involved in the coal, metalliferous, extractive quarries, drilling and civil construction industries.

Contact: Jim Munro, Chief Executive Officer M: 0413 499 447

### Rural and Remote Mental Health Ltd

Booth 5

Rural and Remote Mental Health is a not-for-profit organisation providing culturally-tailored, evidence-driven mental health and suicide prevention programs and early interventions to indigenous communities, rural and agricultural communities and the mining, resources and remote construction industries.

Resource Minds comprises a comprehensive suite of products and workshops and on-site visits ensuring engagement and understanding of the risk factors, as well as self-help strategies and support available for everyone working in the mining and resources sectors.

Contact: Tracey Inglis, Program Manager M: 0412 406 600

### **CQ** Rescue Health Service

Booth 1

In addition to providing aeromedical and, search and rescue, services to regions between Townsville and Rockhampton, including the Bowen Basin and Whitsundays, CQ Rescue Testing Services also offers Drug and Alcohol Testing, and Health Screening, with all profits benefiting the community-funding rescue helicopter service.

Visit us at our booth for a free health screen and hear how this process can benefit your employees and your organisation.

Contact: Leonie Hansen, Relationships Manager M: 0427 578 182



### Safety Equipment Australia Pty Ltd

**Booth 54** 

The SEA Group was established in Sydney, Australia in 1984 and specialises in respiratory protection. We are the importer and wholesaler for **Sundström** respirators, negative pressure PAPR and airline, and the exclusive agents for **Trellchem** re-useable protective suits and **Interspiro** S.C.B.A.

SEA also designs, engineers and manufacturers the **SE-Shield System**, a true positive pressure demand PAPR system. We work closely with end users of all types and have a well establised distribution network. SEA is ISO 9001:2008 accredited and holds NIOSH and INSPEC CBRN approvals.

Contact: Roy Hopkinson, Sales Representative M: 0423 662 002

### Safety Mate Pty Ltd

**Booth 19** 

Safety Mate is a proud Australian based company delivering first class Hand Protection solutions through Australasia.

At Safety Mate, we believe that when it comes to Hand Protection, only the best is good enough. As the exclusive Australian wholesalers of leading glove brands, such as ATG, Ringers and MecDex, Safety Mate offers the highest quality products from the world's best glove manufacturers.

Contact: Wade Robinson, National Sales Manager M: 0499 091 911

### **Scott Safety**

Booth 48

Scott Safety is a leading manufacturer of innovative respiratory, PPE and safety devices for industrial, fire/rescue services, police, military and civil defence globally. Products include self-contained breathing apparatus, supplied air and air-purifying respirators, gas detection instruments, Portable Decontamination Systems, thermal imaging cameras, air compressors, accountability systems and head, eye, face and hearing protection.

Contact: Michael Soulsby, Industrial Sales Manager Australia/New Zealand M: 0407.652.249

### **Simtars**

**Booth 22** 

Queensland's Safety and Mines Testing and Research Station (Simtars), is a world-leading centre for mining safety and health research. We also offer scientific, engineering, testing and training services nationally and internationally to the mining and allied industries.

Contact: Shannon Rodwell, Senior Project Officer M: 0435 893 411

### Smokeshield Australia Pty Ltd Booth

We are proud suppliers of all manner of certified and military approved fire training systems. Supplying the full spectrum of the Fire Industry, including the Mining Industry, for over 10 years has shown our equipment to exceed the expectation for those serious in Fire Training. Our range of products extends from our Australian Government and Military Approved Smoke Generators to our NATO endorsed and NSN listed Gas Fired Training Units to our Simulated Electronic Training Systems.

Contact: Chris Mills, National Accounts Manager, M: 0412 562 401

### **Steel Blue Boots**

Booth 60

If you work on your feet all day, comfort is absolutely essential. Steel Blue boots meet the world's highest safety standards and are the only work boots in Australia endorsed by the Australian Physiotherapy Association.

Steel Blue's comfort technology absorbs more shock, cushioning the feet from day-to-day fatigue protecting you from stress-related injury to the ankles, knees, hips and spine. So, whatever game you're in, demand the 100% Comfort of Steel Blue work boots. A variety of Steel Blue boots will be on display.

Contact: George Browne, Queensland Territory Manager M: 0409 496 144

### **Stotts**

Booth 40

Stotts is well-established Australia-owned and operated business, primarily operating within the mining, rail, defence and marine industries.

Stotts has become a leader in the delivery and distribution of quality products for military lighting applications, rust prevention solutions, corrosion prevention solutions, intrinsically safe lasers and wire rope lubrication systems, with a major focus on better life-cost of ownership and environmental products.

They are proud distributors of Fluid Film, MCE Intrinsically Safe Lasers products and Intrinsically Safe tablets, phones, lasers and radios, as well as the Kirkpatrick System.

Contact: David Lester, Director M: 0428 688 386



### Thermo Fisher Scientific

Booth 37

We are committed to providing our clients with a healthier, cleaner and safer workplace. Our personal protection equipment ensures employers and workplaces comply with WHS obligations.

We are displaying portable and fixed detection instruments, connected safety lone worker devices, and dust and nanoparticle emissions instruments for environmental regulatory compliance.

Contact: Chris Russell, Product Manager Industrial Safety and Gas M: 0434 322 455

### Thompson Safety

**Booth 56** 

### Stop it - Wireless Emergency Stop

Thompson Safety P/L mission for our Wireless Emergency Stop is to improve human safety and mechanical control with cost effective solutions that increases duty of care to protect human and mechanical assets.

The Stop It "Wireless Emergency Stop System" is the most significant improvement in workplace safety in decades, because it allows a more immediate shutdown response in emergencies and potentially harmful situations. With 'Stop It' emergency reaction time is enhanced, which will save a life or serious injury quaranteed.

Contacts: Mike Thompson, Managing Director M: 0407 877 878

Paul Smart, Sales and Marketing Manager M: 0456 499 971

### uvex safety Australia

Booths 20 and 21

uvex is established as a world leading manufacturer of sports and safety PPE with more than 90 years manufacturing experience.

The uvex Mission is "protecting people" with a core focus on science-based innovation to create Personal Protective Equipment including safety eyewear, hand and hearing protection for people at work, at leisure and while taking part in sports activities.

uvex safety is a leading global supplier to the mining and resources industry and long term sponsor and supporter of QMIHSC and we welcome your visit to our stand at the conference.

Contact: Michael Tamone, Queensland State Sales Manager M: 0488 240 116

### Workplace Health and Safety Queensland (WHSQ)

Booth 6

The Healthier Workers Initiative unit aims to make Queensland workplaces safer and healthier through good work design practices to manage chronic disease, musculoskeletal and mental health. WHSQ is committed to working with industry bodies, employer groups and unions to build industry capabilities in identifying and managing work related risk factors.

WHSQ provides free advice, tools and resources to assist businesses create work environments that contribute to the health of workers and minimise injuries and illness.

Contact: Alison Abbott, Principal Advisor, Healthy Workers Initiative M: 0467 810 589





### **Social Program**

Widening our circle of friends and contacts often produces extraordinary outcomes. This can result in significant advances in our knowledge of the industry especially where new developments and practices can be adapted and incorporated into our workplace.



TICKETS INCLUDED IN THE FULL REGISTRATION FEE Tickets to all Lunches and Networking/Social Functions (Welcome Function, Informal Dinner and Conference Dinner) are included in the Registration Fee for all Delegates who have purchased a Full Registration.

PARTNER AND GUEST TICKETS AVAILABLE FOR PURCHASE For those who require additional tickets for partners and guests, they are available for purchase through the Registration Desk.

N.B. There will be a limited number of tickets still available, however please contact the Acclaim Staff through the Registration Desk as soon as possible to avoid disappointment.

### ▲ SUNDAY 6th August

**LUNCH - Pavilion Lawn -** Proudly Sponsored by Redpath Australia Pty Ltd 12.30pm

Partner and Guest Tickets \$55.00 per person

7.00pm - 10.30pm WELCOME FUNCTION - The Pavilion Marquee



Proudly Sponsored by Peabody

The Welcome Function will begin at the conclusion of the Business Session on Sunday afternoon. The Welcome Function will be held in The Pavilion Marquee among the Trade Displays.

As Delegates move amongst the Displays, dinner and beverages will be served.

Our entertainer will be George Ferguson, an accomplished musician who has performed with acclaimed international artists including Tina Turner, the Hollies and Del Shannon.

(A ticket to the Welcome Function is included in your Registration Fee if you have paid for a Full Registration).

If you wish to bring your partner or a guest to this Function, tickets may be purchased by contacting the Acclaim Staff through the Registration Desk as soon as possible.

Partner and Guest Tickets \$100.00 per person



### ▲ MONDAY 7th August

12.15pm **LUNCH - Pavilion Lawn and Trade Displays -** Proudly Sponsored by Downer Mining

Partner and Guest Tickets \$55.00 per person

7.00pm - 10.30pm INFORMAL DINNER AND CHARITY AUCTION - Ballroom, The Star Gold Coast



Proudly Sponsored by uvex safety Australia

The Informal Dinner this year will have a light hearted Bavarian theme celebrating the country of origin of our Sponsor uvex safety Australia. The purpose of this event is twofold, the first to provide a Social/networking event for the enjoyment of our delegates and the second to raise much needed funding for our Charity of Choice which this year is 'A Miners Legacy'.

Our special Guest for this evening will be Olympic Champion, Anna Meares OAM who will share some of the highlights of her amazing career. Dinner will feature the flavours of Bavaria. And to complete the night there will also be some great Bavarian entertainment.

### **AUCTION PRIZES AND DONATIONS**

Please contact the Conference Organiser, Acclaim on 07 3254 0522 if you would like to donate a prize or money for the Live and Silent Auctions.

(A ticket to the Informal Dinner is included in your Registration if you are a Full Paying Delegate).

If you wish to bring your partner or a guest to this Function, tickets may be purchased by contacting the Acclaim Staff through the Registration Desk as soon as possible.

Partner and Guest Tickets \$130.00 per person

GROUP DISCOUNT (Buy a table of 10 guests for the price of 9) A discounted group booking for 10 is available for \$1,170.00 which is the current price of 9.



### ▲ TUESDAY 8th August

**12.15pm LUNCH - Pavilion Lawn -** *Proudly Sponsored by BHP* 

Partner and Guest Tickets \$55.00 per person

6.45pm - 11pm CONFERENCE DINNER - Innovation and Health Program Award Presentations

Pavilion Ballroom - Proudly Sponsored by GLENCORE

**GLENCORE** 

6.45pm - 7.30pm PRE DINNER BEVERAGES - Pavilion Gallery

7.25pm CONFERENCE DINNER – INNOVATION AND HEALTH PROGRAM AWARDS

The Conference Dinner is the time to celebrate what we plan will be another successful event. It is a night where we take a few hours to reminisce whilst spending quality time with colleagues and friends within the Mining Industry.

A major feature of the evening will be the announcement and presentations of the winners of the Innovation Awards and the Health Program Awards. The winner of the Innovation Award will win the trip to the A+A Trade Exhibition in Dusseldorf, Germany as a guest of uvex safety Australia.

This is your last chance to catch up with friends and colleagues - so please make sure you attend.

A three course Dinner with accompanying beverages will be served followed by some great entertainment. Renae Suttie performs regularly as a soloist both here and overseas and has been a support vocalist for artists such as Lee Kernaghan, Marcia Hines, Ricki Lee, Richard Clapton and Graeme Conners.

Joel Salmon has performed in over 25 countries and has just returned from a 4 month engagement in Southern California. At home he has toured with Circus Oz and was nominated for a MO Award for 'Best Comedy Talent. He has has a remarkable reputation for his laugh out loud experiences!

(A ticket to the Conference Dinner is included in your Registration if you are a Full Paying Delegate).

If you wish to bring your partner or a guest to this Function, tickets may be purchased by contacting the Acclaim Staff through the Registration Desk as soon as possible.

Partner and Guest Tickets \$175.00 per person

GROUP DISCOUNT (Buy a table of 10 guests for the price of 9) A group booking of 10 guests is available for \$1,575.00 which is the current price of 9.





### **Conference Proceedings**

The following Presentations and Papers will be available on the website at www.qldminingsafety.org.au post Conference

- PowerPoint presentations provided by Keynote Presenters
- PowerPoint presentations provided by Concurrent Session Presenters
- Papers provided by Concurrent Session Presenters
- PowerPoint presentations from the Innovation Sessions
- Innovation Finalists Submissions

Proudly Sponsored by Simtars

**Simtars** 

### **Charity Auction**





### 'A MINERS LEGACY' - The Star Gold Coast - Pavilion Marquee

This year's Charity Auction is in aid of 'A Miners Legacy', an organisation which provides support, quidance and assistance to families affected by mining fatalities.

The sudden loss of a loved one is a tragic and traumatic event. Regrettably, sometimes the journey following a fatal accident is one which can be just as traumatic. Often the void created by the lack of information, the official and sometimes bureaucratic legal processes, lengthy inquiries followed by financial difficulties, time delays, rumours and uncertainty are an additional burden on grieving families.

We dream of the day when there is no need for 'A Miners Legacy', when every mine worker returns home safe every day. Until then, we need your help to support the families of our lost miners.

It's not too late, please contact the Conference Organiser if you would like to donate an item for the live and silent auctions or to offer a cash donation in support of this most worthy initiative.

### **Auction Proceeds**

All Proceeds from the Auctions and Raffle will go straight to 'A Miners Legacy'. The Mining Industry in Queensland is supported by many organisations who give of their time and resources to make our industry a safer and healthier place. By supporting this Auction or even buying a raffle ticket you can help raise much needed funds.

Auctioneer Phil Black is very entertaining and very persuasive as he works the audience to gain the maximum amount of money for 'A Miners Legacy'. There are some great bargains to be had as he runs through the Live Auction at a fast and furious pace.

'A Miners Legacy' provides an invaluable service to our Industry and requires funding to continue their work; therefore we ask that you dig deep as we know you won't be disappointed and you will be supporting a great cause.

If you are hesitant to bid for items in the Live Auction there is a Silent Auction and also a Raffle where for a few dollars you have a chance to win some great Prizes, kindly donated by our Sponsors uvex safety Australia and drawn by Anna Meares OAM.

### Special 'One off' Collectors Item

A set of five specially commissioned 'Helmets' by fine art airbrush artist Alison Cosgrove, commemorating and honouring those who lost their lives in the Mount Mulligan Colliery, Box Flat No.5 and No.7 Collieries, Kianga No.1 Mine, Moura No.4 Underground Coal Mine and Moura No.2 Underground Coal Mine will be one of the major items in this years live Auction.

### **Conference Items**

### **CONFERENCE BAG**

All Attendees will receive a Conference Bag containing all information relevant to the Conference, plus promotional material and items from our Sponsors and Exhibitors.

The Conference Handbook, Pocket Program, the Attendee List and the Exhibition Competition card are included.

Proudly Sponsored by Simtars

### Simtars

### **CONFERENCE HANDBOOK**

This Conference Handbook containing all information relevant to the next three days of Conferencing is provided for all delegates.

Proudly Sponsored by GCG Health Safety and Hygiene



### **POCKET PROGRAM**

For quick reference a Pocket sized Program will be supplied to all Attendees.

Proudly Sponsored by Croomo



### **NAME BADGE**

Your Name badge will be ready for you when you Register. This badge will allow entrance to all Conference Sessions, the Trade Exhibition and Social Functions. It is imperative they be worn at all times.

Should you lose yours please visit the Registration Desk where a replacement will be organised.

Proudly Sponsored by NAUTITECH





### **Social Media**

### HELP US SPREAD THE WORD THROUGH SOCIAL MEDIA

We invite you to use your Social Media contacts to report your experience at the 2017 Conference – by doing so you will help us get the news out to the widest audience.

Joining is easy. Log on to Facebook and search: Queensland Mining Industry Health & Safety Conference and **Like** the page to help us spread the word. If you would like further information on any presenter please contact the Conference Secretariat and they will point you in the right direction.

https://www.facebook.com/healthandsafety.com.au?fref=ts

### **Student Host Program**

This year nine students from those universities which provide courses relevant to the Mining Industry have been invited to attend the Conference as guests of the Committee. The Program is designed to provide them with exposure to the Industry. Students are nominated from the University of Queensland and the Queensland University of Technology.

Please keep an eye out for them and take the time to share some of your experiences with them.

Proudly Sponsored by Safety Equipment Australia



### **FIRST AID SERVICE**

During the three days of Conferencing, Delegates will have access to a First Aid Service provided by The Star Gold Coast.

### **TAXATION**

Where appropriate Delegates are advised to contact their Taxation adviser on what records should be kept for tax deductible expenditure and GST purposes. GST is included in all prices and can be claimed as a tax credit, if you are registered for GST.

THE REGISTRATION FORM IS APPROVED BY THE AUSTRALIAN TAX OFFICE AS A TAX INVOICE.

### WIMARQ Networking Function - The Star Gold Coast

Monday 7th August 5.30pm to 6.30pm

### Meet the 2017 Queensland Resources Awards for Women winner

Karen Alexander has worked at Hastings Deering since 2014. As the Manager for Strategic Alliances - Mining, Karen manages Hastings Deering's largest corporate account – BHP Billiton. She has more than 30 years' experience in the resources sector covering manufacturing, distribution, sales, marketing, product development, technical, human resources and change leadership.

Karen holds a Mechanical Engineering Degree (honours) from Queensland University of Technology. She is also a member or Chair of the Faculty Advisors Boards for Mechanical,

Manufacturing and Medical Engineering at QUT and more recently the STEM Advisory Board advising on course design and student curriculum. She was recognised by QUT in 2006 with a Dean's award for Outstanding Alumni Contribution to the university. Karen was also a finalist in the Telstra Business Woman of the Year 2007. The WIMARQ events are renowned for providing entertaining networking opportunities for women in the resource sector throughout Queensland.

Men are also encouraged to attend.

The event is **FREE**, but places are limited. If you haven't already booked, please contact Caroline Morrissey as soon as you arrive. Drinks and finger food will be served. We look forward to seeing you there.

To book go to: https://www.qrc.org.au/02\_cal/index.asp and follow the prompts.
Further inquiries contact Caroline Morrissey at carolinem@qrc.org.au or 07 3316 2507







### **Innovation Awards for 2017**

# To be presented at the Conference Dinner – Pavilion Ballroom Tuesday Evening 8th August

### The Finalists

The 10 Finalists will be invited to the stage during the Conference Dinner, where the presentation of Certificates will occur.

### The Winners

From these 10 Finalists, the Winner, Highly Commended and Peoples Choice will be announced and Awards and certificates presented.

### Talk to the Innovation Authors/Presenters

During the Morning Break on Tuesday the Authors of the Innovation Submissions will be available to discuss their Innovations with you. In addition, one presenter from the Innovation Award winning submission will be invited to present at the Mines Annual Briefing for 2017.



### **Health Awards for 2017**



The winner of Health Program Award will be announced at the Conference Dinner.

The Health Program Award carries a prize of \$1000.00 to be donated to a cause determined by the winner. The Winner and the Highly Commended Submissions will be presented at the Conference Dinner on Tuesday evening.

### **INDEX - Innovation Submission Finalists** Pg 31 SAFE STOP (Anti Door Jam Unit) Redpath Australia Pty Limited Longwall Dust Gutter System Pg 32 Anglo American Moranbah North Mine Plastic Final Drive Cover – Reducing Handling Risk Pg 33 **Thiess** Pg 34 Test for Isolation' (TFI) Box New Hope Group - New Acland Coal Pg 35 Auger Mining Gas Management Innovation Peabody Millennium Mine & Coal Augering Services AD45 Front Strut Handling Tool Pg 36 George Fisher Mine, Mount Isa Mines - a Glencore Company Pg 37 **Ventilation Model for Training** Glencore Oaky North Mine T-Man Lighting Tower - Shining a Light on Safety Pg 38 Thiess Hydraulic Implement Pressure Release Station Pg 39 New Hope Group - Jeebropilly Mine **Continuous Miner Dust Suppression** Pa 40

The Innovation Submissions published in this Handbook are the Shortened versions (Abstracts). The complete version of the Submissions will be listed in the 'Past Conferences' page on the Conference website.

Anglo American Coal

### SAFE STOP (Anti Jam Door Unit)

### Redpath Australia Pty Limited



#### The Problem or Initiative

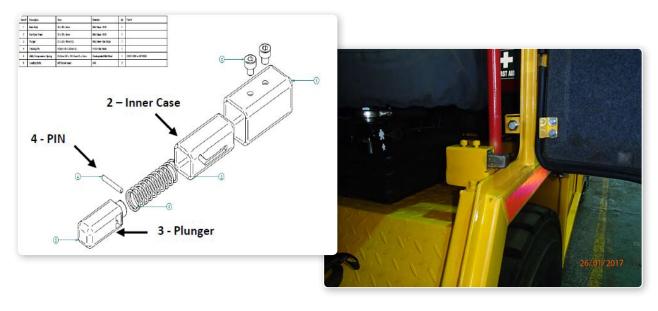
The interface of underground mobile equipment and operators continues to be a significant risk in the mining industry. A particular concern to Redpath has been the risks associated with operators accessing and egressing heavy mobile equipment operator cabins. There are a number of hazards associated with this routine task which have been the mechanism of many incidents over the years. Of specific concern to Redpath has been the debilitating incident of an operator jamming his hand and fingers in the door jam area of a piece of underground heavy mobile equipment. In recent years, this mechanism of injury has resulted in a number of disabling injuries and countless near miss incidents. The outcome of such an incident has resulted in major ramifications and life long disabilities to operators.

#### The Solution

The Redpath Engineering team were tasked with investigating options to mitigate or even eliminate the potential for future reoccurrence of these door jam type crush injuries. After a number of designs and proto types the SAFE STOP Anti Jam Door Unit was commissioned for a trial on the fleet of underground spray rigs. The trial proved a success but also identified opportunities to improve the durability and service life of the mechanism. A further trial has now resulted in the SAFE STOP Anti Jam Door Unit being retro fitted across the Redpath fleet.

### **SAFE STOP Operation**

If the equipment door is closed slowly then item 4 (pin) will follow the contour of Item 2 (inner case) and move into the lower cut out of item 3 allowing item 3 (plunger) to fully retract into Item 2 (inner case) allowing the door to close fully. If the door is slammed or closed at a fast rate, potentially creating a crush zone in the door jam area, then the Pin item 4 will not be able to follow the contour of the inner case Item 2 and will lock into the upper cut out section of the plunger item 3 therefore not allowing the plunger to full retract into the inner case. This then prevents the door from closing fully (gap of 2 – 3 inches) and eliminates the potential for a crush zone situation should the operator have his hand/fingers positioned in the door jam area of the cabin.



### **Longwall Dust Gutter System**

**Anglo American: Moranbah North Mine** 

Respirable Dust Management



In Underground Longwall mining, dust management when a Powered Roof Support (PRS) lowers, advances and sets to the roof during normal mining operation has been an area of focus. The articulation point in the PRS canopy allows coal and fine dust particles to fall into the main air ventilation path potentially creating a dusty working environment for coal mine workers.

The solution was to design a system to contain and manage the fine float dust and pieces of coal that have fallen from the articulation point and side shields of the PRS. The result being a dust gutter system that contains the dust and coal particles sliding it into the goaf and away from the main ventilation path. By achieving this the dust and coal particles are reduced and controlled on the longwall face.

Version one was simply a piece of vinyl suspended between the side shield and the PRS canopy which captured the dust and coal. This soon became full, falling down creating dust and coal particles to be present on the longwall operating face from time to time.

Version two was a folded piece of stainless steel suspended by vinyl and attached to the PRS by magnets.

Versions three through to nine were refined from version two with the incorporation of water sprays to ensure the gutter system doesn't become blocked and overloaded during normal operation.

Additional real time monitoring has identified a significant reduction of air borne dust particles since the installation of the dust gutter system.

Anglo American is continuing to improve the system with the redesign of the waterboard and implementation of additional sprays in conjunction with the dust gutter system. Moranbah North Mine will commence the next Longwall panel and all future panels with the confidence that Anglo American is continuing to improve technology to improve the health and safety of its employees.



Figure 1 Left Dust Gutter



Figure 2 Right Dust Gutter



Figure 3 Dust Gutter Fitted

### Plastic Final Drive Cover - Reducing Handling Risk



### **Thiess**

Mining truck rear wheel groups contain large reduction gearboxes (final drives) that are rebuilt by Thiess' Component Rebuild Centre (CRC) in Brisbane. When these components are delivered, a cover over the spindle is required to prevent rust forming on sensitive steel surfaces. Covers were previously made from heavy steel plates with no manual handling lifting points. Inherently heavy and awkward, they created a large weight on a worker's spine, increasing back strain risk if they bent or twisted. Covers were also secured with silicon and bolts, and required the help of a second person to remove. The cover seal had to be removed by hand before the drive could be repaired or replaced. This added an additional 30 minutes of labour.

CRC engineers, Rhys Markun and Burkhard Rabe, identified an opportunity to re-engineer the design of the cover to reduce the risk of physical injury to maintenance workers.

The initiative re-engineered the cover to include an in-built lift point closer to the maintenance worker's centre of gravity. This significantly reduced the weight on a fitter's spine by enabling a more comfortable lift. The material was also swapped from a heavy steel plate to a lighter, high-density polyethylene (HDPE). Machine spigots were also added to the plate that fit straight onto the final drive spindles. These spigots allow a single worker to easily lift and place the cover. This overcame the previous requirement for a second person or awkward installation by the primary worker while holding the part. The new covers also reduce fitment time, using the component installation o-ring as the seal.

The design has been extremely successful and adaptable, with engineers believing the concept can be applied across the industry on any type of machinery where a steel plate is used to cover a component for transportation, storage, sand-blasting and painting. It may be 'small', but this kind of proactive initiative and innovative thinking is what keeps companies at the forefront of excellence.



Figure 1: HDPE Final Drive Cover - Final Prototype with in-built box



Figure 2: HDPE Final Drive Cover - Prototype two featuring fold-away handles

### 'Test for Isolation' (TFI) Box

### New Hope Group - New Acland Coal



#### The Problem

The New Hope Group operates a large mining fleet of heavy earthmoving equipment across its operating coal mines and rehabilitation sites. This equipment is isolated via a low voltage isolation switch isolating the earth (negative) side of the on-board electrical circuit when switched to the 'open' position. Positive isolation practices are applied prior to personnel accessing the 12'o-clock shadow of machines. This typically includes for the purposes of;

- Pre-start checks.
- Servicing/Refuelling,
- Maintenance activities,
- and various other tasks.

Current isolation practices are based on the 12 step isolation process which includes verification of effective isolation. Typically, verification is achieved by attempting to 'start' the machine via the ignition switch which requires the operator to access the operator cabin via the respective access systems/points. It is assumed that by attempting to start the machine (and the machine not starting), that no electrical energy is present. This process presents an inherent level of risk due to the required access to the operator cabin to verify isolation (ergonomics) and the personnel behaviours required to achieve compliance due to the additional physical requirements of the task ('it's too hard!'). The use of the ignition switch to verify isolation also presents issues to additional personnel required to access a machine that has already been isolated. This prompts the question - 'how frequently is the verification process being applied in the isolation process'?

### **The Solution**

New Acland Coal has developed a 'Test for Isolation' (TFI) Box that is designed to test the effectiveness of the isolation directly at the isolation point. This box is mounted at the isolation point, providing a single location for the isolation and verification of the machine electrical circuit. This also means that verification of isolation or 'Test for zero potential' can be achieved without having to access the cabin of the machine or attempting to engage the engine. The TFI box is designed to;

- 1. Ensure the LED changes state to illuminated when the isolator switch is open Verifying effectiveness of the isolation
- 2. Ensure the LED changes state to illuminated when the isolator switch is open and the 'test' switch is utilised providing verification of isolation.
- 3. Fail safe i.e. should it fail, the light will fail to illuminate indicating that isolation has not been achieved.
- 4. Tamperproof
- 5. Replaceable i.e. easily changed with another unit should a fault occur.







### **Auger Mining Gas Management Innovation**

### **Peabody Millennium Mine and Coal Angering Services**

#### The Problem

For the past 25 years, auger mining has been carried out in the Australian coal industry with limited supporting gas management data. Frictional ignition, is a significant risk when augering in the presence of elevated levels of coal seam gas.

A full risk review identified the requirement for extensive testing of the gas environment to be conducted in the auger hole during mining, in order to determine if existing controls were effective. Initial testing showed that the delivery of inert gas into the mouth of the hole during augering was in fact not effective in eliminating the risk of frictional ignition and further research and development was required.

#### **The Solution**

Down hole monitoring was an enabling innovation developed as part of the overall solution, and has been successful in effectively monitoring the gas environment at the cutting head during mining via the installation of an intrinsically safe gas monitor on the cutting head, with 3 stage dust filtration, inside a foam-lined strong-box.

The key innovation was the change to the delivery method of the inert gas, via tubes installed inside the auger flights, directly to the cutting head, approximately 3m from the cutting face. Gas tubes inside auger flights were engineered based on site developed designs to join together with a seal at the shank end of the flight, exiting via a port directly on the auger cutter head.



Picture 1 - Gas monitor mounted on auger cutter head

### Benefits/Effects

The innovative solution of pumping inertisation gas through the auger flights to the cutting head has created the ability to achieve inert auger mining conditions from 5m from the highwall through the delivery of inert Nitrogen (N2) gas, with less than 5% Oxygen (O2). Additionally through gas monitoring data, the changes to the gas management system has been proven to effectively eliminate the risks of frictional ignition associated with highwall auger mining activities in an elevated gas environment.



Picture 2 - Gas monitor, tube shank, socket and delivery port

### **AD45 Front Strut Handling Tool**





### The Problem

Removal and replacement of the front suspension struts (145kg) on Caterpillar AD45 underground haulage ejector trucks is a difficult and physically demanding process in a restricted work space, exposing maintenance personnel to a combination of hazards including:

- Close proximity to suspended loads during the removal and installation of strut pins.
- Manual handling exposure due to the out of balance force created through the process.
- Pinch points.

### **The Solution**

George Fisher Mine's philosophy of leading with safety in recent years has positively impacted the safety culture of the workforce onsite and provided the opportunity to continually improve everyday work practices. This notion was the springboard for members of the Mobile Assets team to have a voice and seek assistance to solve a problem which they believed exposed not only themselves but their co-workers to unnecessary risk during the strut replacement task.

As an off the shelf solution was unavailable, an integrated team was assembled to define, design, trial and implement a solution to address the problem. Refer to Figure 1 below.

### Benefits/Effects

The deployment of this tool into the workshop environment has significantly reduced the inherent risk associated with this task. The strut is restrained in the clamp during the critical steps of the task mitigating exposure to suspended loads, manual handling and pinch point hazards. The hydraulic cylinders are also equipped with counterbalance valves which prevent any unplanned movement due to a loss of hydraulic pressure further mitigating exposure to the line of fire. This tool has also provided a productivity improvement by reducing the task duration by approximately 11hrs.

### **Approximate Cost**

Final costs were approximately \$16,340 which included all development costs including survey, modelling and shop detail as well as fabrication and painting.

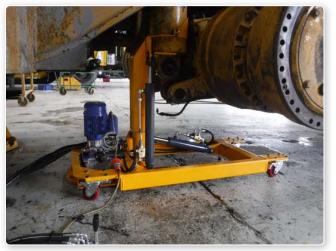


Figure 1. AD45 Front Strut Handling Tool

# **Ventilation Model for Training**

**Glencore Oaky North Mine** 



#### **Short Description**

There are a number of major hazards inherent in underground coal mine ventilation systems and workforce understanding of these hazards is vitally important for their safety and health. Coal mine workers are typically visual, "hands on" learners requiring training and knowledge in something they cannot see or touch. To improve learning outcomes a model ventilation system was created using 3D printing technology and a variety of visualisation tools to "tell the story" of how a mine ventilation system works.







#### **Thiess**

Thiess projects operate 24 hours per day, 7 days per week. This requires 240-volt industrial lighting towers be installed at an active mine site to illuminate excavation pits, dumps, go-lines, maintenance pads, haul roads and other working areas. At any given time, more than 60 separate lighting towers are in operation across a radius of up to 50km. Each lighting tower requires continuous field monitoring and maintenance, resulting in high-levels of interaction with towers by maintenance and operational staff.

Thiess' Plant and Asset Operations Manager, Brian Edwards, identified a number of risks and opportunities for improvement, including:

- Reducing electrician's exposure to potentially harmful gases when replacing blown globes
- Minimising maintenance personnel exposure to high-voltage circuits when monitoring daily oil and fuel levels
- Decreasing the interaction between light and heavy vehicles with high-voltage towers during tower switch-on, and off, during shifts.

To address each problem, Brian first analysed and monitored maintenance data. Brian's research identified the existing 3-head, 240V Allight metal halide lighting tower could be improved by replacing the 240V AC metal halide lights with his T-MAN 24V DC LED light system. The T-Man lighting tower was designed and developed in-house by Thiess staff using existing lighting plant components including frames, axles, wheels, and hydraulics, providing a cost-effective solution.

Although LED lighting towers are in use across the mining industry, this is a design first, as there was no equivalent product available on the market when Brian first developed this idea in-house. By using existing components and repurposing lighting towers at the end of their useful life, the team has delivered a cost-effective innovation not seen in the industry before. The T-Man lighting tower improves safety conditions, reduces Thiess' environmental footprint and inspires personnel to challenge business-as-usual activities. By minimising maintenance personnel exposure to high-voltage circuits and decreasing interaction between light and heavy vehicles, the T-Man lighting tower has already achieved strong safety results.



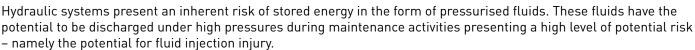
Figure 1.
T-Man 24V Lighting Tower Conversion

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# **Hydraulic Implement Pressure Release Station**







The New Hope Group operates a large mining fleet of heavy earth moving equipment across its operating coal mines and rehabilitation sites, a component of which is a large hydraulic excavator fleet.

Current isolation practices are based on the 12 step isolation process which includes verification of effective isolation.

Original Equipment Manufacturer design of existing operating equipment across New Hope Group sites does not cater for an effective method of dissipating the stored hydraulic energy in hydraulic circuits prior to maintenance activities. This has typically been managed across sites (and industry) via a slow/controlled release of fasteners and/or clamping arrangements to 'break' the closed circuits under pressure – introducing unnecessary risk which by improved design/engineering can be avoided.

#### **The Solution**

The development and installation of a 'Hydraulic Implement Pressure Release Station' has been integrated into the onboard hydraulic implement systems of Hydraulic Excavators. This system allows Maintenance Technicians to control the release of stored hydraulic pressure and verify release via gauges within a 'closed' hydraulic circuit in lieu of the previous methods of manually opening potentially pressurised hydraulic circuits.

This station has the ability to significantly lower the risk profile associated with testing and maintaining hydraulic implement circuits via;

- A controlled release of stored pressure in the implement hydraulic circuits prior to maintenance
- Verification that hydraulic pressures have been released by use of pressure gauges fitted to the machines implement hydraulic circuits (i.e. while circuits remain 'closed').
- Timely and effective visual diagnostics of hydraulic cylinder leakage without having to 'open the circuit/s for testing.
- Pressure gauges used for pressure testing of the implement hydraulic system without further system intervention/ exposure.

Additionally, the system may be used as a 'dead man' system to lower the implements to the ground in the event of engine loss or similar, presenting as an engineering solution to a significant high potential risk.





# **Continuous Miner Dust Suppression**



## **Anglo American Coal**

The basic principle of the dust suppression solution on the continuous miners is to implement engineering controls that isolate the workers from the source of dust; thereby forming a safe working area during the production sequence.

The integrated hungry board spray has taken the principles of a curtain spray bar and a protection device for the hydraulic hose and amalgamated them into a robust compact unit. The angled design is to prevent build-up of material on the spray bar to ensure reliability of the dust suppression controls as well as buffer protection around the sprays to prevent damage to the actual spray nozzle. The design of the block was to sit flush against the roof bolting rig hydraulic bank at the front of the miner to prevent failure of the hydraulic 5-1 hoses due to material damage. The curtain design was employed as opposed to wetting the coal with large amounts of water, to redirect the dust created from the cutter head away from the workers and through the ventilation tube and into the return airways.

Table 1 identifies the improvement achieved through the continual development of the continuous miner dust suppression system. The initial goal of zero personal respirable dust exposure exceedances has been achieved.

	OFF TUBE	OFF TUBE	TUBE SIDE	TUBE SIDE
	FRONT	REAR	FRONT	REAR
PERCENTAGE IMPROVEMENT	79.64%	30.36%	13.27%	78.55%

In addition to the occupational health benefits the introduction of the integrated hungry board curtain spray has a predicted positive impact on production of 128 hours (approximately 10 days longwall float) along with a saving on hydraulic hoses of approximately \$230 000.



Figure 1 – Integrated Hungry Board Curtain Spray

# **Queensland Mining Industry Health and Safety Conference 2017**

# Peoples Choice Award Ballot Paper

Please cast your vote below and tear out for collection at the end of the Session.

In	novation	Please tick <u>only one</u> box	
1.	SAFE STOP (Anti Door Jam Unit) ) Redpath Australia Pty Limited		
2.	Longwall Dust Gutter System Anglo American Moranbah North Mine		
3.	Plastic Final Drive Cover – Reducing Handling	g Risk	
4.	<b>Test for Isolation' (TFI) Box</b> New Hope Group - New Acland Coal		
5.	Auger Mining Gas Management Innovation Peabody Millennium Mine & Coal Augering Services		
6.	AD45 Front Strut Handling Tool George Fisher Mine, Mount Isa Mines - a Glencore Company		
7.	Ventilation Model for Training Glencore Oaky North Mine		
8.	T-Man Lighting Tower - Shining a Light on Sat	fety	
9.	Hydraulic Implement Pressure Release Statio New Hope Group - Jeebropilly Mine	n	
10.	Continuous Miner Dust Suppression Anglo American Coal		









# Other Innovations

# **INDEX - Other Innovation Submission Entries** Pg 44 Too Easy Pulley Handling System New Hope Group Liebherr T282 - Grid Box Covers Pq 45 Peabody Millennium Mine Pq 46 Temporary Bin Access System New Hope Group Design & Manufacturer of a Safer and More Efficient Underground Mining Vehicle-L-MUVA with Scissor-Lift Pg 47 ADiT Engineering Pty Ltd Pq 48 EDMO Jacking Stand - 'Return to Open' Control Valve New Hope Group - New Acland Coal and EDMO Equipment Liebherr T282 - Rear Access Platform Pq 49 Peabody Millennium Mine Working at Height Solution Maintaining Haul Trucks Pg 50 Anglo American Capcoal Surface Operations **Chock Carrier Remote Pendant** Pg 51 Anglo American Moranbah North Mine Pg 52 Toyota Hilux Upper Ball Front Servicing Tool Rio Tinto Weipa Operations Newlands Safety Video Pg 53 Newlands Open Cut - Glencore Caustic Pipework to CIP Tank Pg 54 Incitec Pivot BSL Lifting Aid (AKA "Big Foot") Pg 55 Anglo American Pg 56 Permit to Work Hut Incitec Pivot

# Too Easy Pulley Handling System



#### The Problem

Difficulties encountered in the safe & efficient removal & installation of pulley assemblies from conveyor systems at New Acland Coal's CHPP. These conveyor systems contain multiple pulley assemblies located at different locations along the length of the conveyor. There are times when these pulley assemblies have to be removed for repairs and maintenance and some of them, particularly those located around the counter weight area, present significant challenges in regards to personnel removing them safely and efficiently. The conveyor structure design, tight working area and weight of the pulley assemblies all contribute to the difficulty of the task. Traditionally this work would involve a considerable amount of complex rigging and manual handling which exposed personnel to the potential risk of injury, surrounding equipment to the possibility of damage and contributed greatly to the amount of time required to perform the job.

#### The Solution

The design and manufacture of the custom built and load rated Too Easy Pulley Handling System that will work across all of our conveyors on site to significantly reduce the likelihood of harm occurring to our Personnel during the pulley removal & installation process. The system's components are easily fitted to and be used on our standard conveyor systems and can safely be operated by anyone with basic fitting & rigging skills. When utilised correctly the Too Easy Pulley Handling System allows for a significant reduction in manual labour, complex rigging and the removal of Maintenance Personnel from the immediate work area while a pulley assembly is being removed or installed.



Fig.1 The Tail End Pulley component of the Too Easy Pulley Handling System.

# Liebherr T282 - Grid Box Lid Upgrade

# Peabody - Millennium Mine



To access the Liebherr T282 Grid Boxes, the OEM design requires multiple bolts to be undone and large steel covers to be removed. This exposes personnel to potential falls and manual handling and crush/pinch injuries due to the location, access and weight of the covers. This process was identified as a significant risk of injury by personnel undertaking the task. An improvement project was initiated to design out the hazards.

#### The Solution

A review of the current OEM design and methodology of removing Grid Box lids was undertaken and assessed to identify requirements for a solution to the problems experienced. The OEM and external vendors were engaged to develop a prototype solution so as to remove the requirement to remove the covers and to also provide an enclosed work area, thereby removing the working at heights/fall exposure when working in the grid boxes.

A prototype hinged grid box lid arrangement and handrail attachment was designed and trialled. Due to the weight of the doors and manual handling requirements/access, the doors were split to reduce effort to open/close. The outer door had to be of sufficient height so as to provide a barrier/handrail to prevent a fall when working in the gird box, therefore making these doors unequal. The modified doors were installed and trialled prior to final design sign off and implementation rollout.

Modified Grid Box Covers and Opening Arrangement

#### **Benefits**

The Liebherr T282 Modified Grid Box Covers and Handrails offers multiple benefits to the safety of employees. These include:

- Removes requirement to undo bolts on top of covers through latch arrangement (no exposure to edge/fall and working at heights)
- Removes requirement to manually handle and store covers (housekeeping on top deck).
- Provides full edge protection around the grid box, removing risk of falls and requirement for working at heights in this area.
- Easier inspection/maintenance access.
- Handrails fully enclose top deck of truck.
- Design includes positive restraint of covers to prevent uncontrolled movement when open.
- Hinged arrangement lowers weight of cover and effort required.

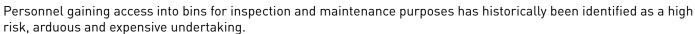


Modified Grid Box Covers and Opening Arrangement

# **Temporary Bin Access System**

## **New Hope Group**





Personnel entering and exiting bins were exposed to a fall potential of greater than 20m, self-escape and aided rescue was difficult and flexibility of entry and exit from bins restricted. Costs associated with the use of cranes and downtime on tasks experienced contributed to a considerable percentage of a maintenance budget.

#### The Solution

Design and fabricate a temporary access system to enter bins with the key requirement of reducing the level of risk to which personnel are exposed, provide greater flexibility for access, and the ability to be available in the future for ongoing maintenance and inspections of bins.

A team at the New Hope Group Jeebropilly CHPP and G3 Engineering worked together to solve the problem. The team designed a temporary bin access system that can be lifted into position and removed by crane as required. Reducing risk to personal, giving greater flexibility and cost savings.

The design incorporates a bolt on attachment plate which is secured by bolts, top staging platform, caged ladder to a bottom staging platform and an inclined ladder to the working surface. The access system is designed to be lifted into position by a crane where it is hung by the attachment plate from the top rim of the bin and then bolted in place with the body of the structure supported against the inside wall of the bin.

The system has been used in practice relining a bin cone providing excellent results in reducing risk to personnel, improved ability for self-escape, aided rescue and reducing costs.



Concept Temporary Bin Access System



Temporary Bin Access System in use



# Design and Manufacture of a Safer and more Efficient Underground Mining Vehicle - the L-MUVA with Scissor-Lift

#### **Short Description**

In 2014-2015 ADIT Engineering, a 26-year-old Queensland company with the Company Directors holding over 50 years combined mining experience, embarked on the design and manufacture of a new innovation aimed specifically at the mining industry.

New energies were invested in the design and build of an underground mining vehicle. The Directors' idea was sparked from seeing incredible wastage of machinery, including excessive maintenance and repair costs associated with operating vehicles underground. The Directors constantly looked for ways to improve operational utilisation through safer approaches and improved cost efficiencies. In 2016-2017 The "L-MUVA" was born, a low maintenance underground vehicle.

#### The Problem

Mining vehicles are adapted/modified to operate underground, with significant costs associated to a short-term vehicle life cycle. Some vehicles and their applications/usages are known to have higher safety risks, and require additional resources to avoid potential injuries. Boom-type elevated platforms may have higher risks due to the controls of the vehicle functions not being fully located with the Operator whilst working at heights. The Operator generally sees and knows best the immediate risks. Blind spots and visibility issues for people on the ground controlling the machine can cause additional risks for the Operator whilst working at heights.

#### The Solution

The L-MUVA was designed to improve safety performance in a number of areas. Firstly, it has a lower centre of gravity reducing the chances of rolling, noting it can turn around within a 4.5m turning circle operating safely in confined spaces. Secondly, the purpose-built L-MUVA Scissor-Lift design raises/lowers from the centre of vehicle allowing the Operator to drive the L-MUVA from the basket, including raising and lowering the basket fully. Various alarms, warning sensors and safety measures are in place to allow the vehicle to travel at low speed on acceptable inclines/declines.



# EDMO Jacking Stand - 'Return to Open' Control Valve



New Hope Group - New Acland Coal

#### The Problem

Jacking stands are commonly utilised across the mining industry to maintain heavy earthmoving equipment. By design, the EDMO jacking stand requires a manual operation to raise the jack to the desired height by closing the release valve into a fixed position, and extending stand via an internal jacking mechanism. The stand is then secured by way of a locating pin through the aligned hole before manually lowering the internal jacking mechanism by opening the release valve. This process is reliant upon the operator inserting the pin and releasing the jack pressure to avoid potential stand failure (collapse) and/or mechanical damage.

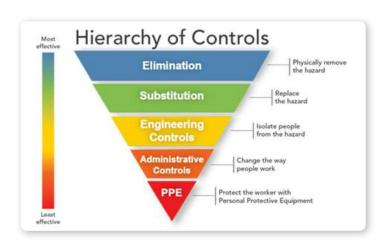
#### The Solution

Upon review of the incident and EDMO Jacking Stand, an opportunity was identified to introduce an engineering control that automatically returned the release valve to the 'open' position in the absence of manual pressure being applied (i.e. intent to raise the Jacking Stand). Upon release of the manual pressure (and the release valve returning to 'open'), the jacking stand will automatically lower to the stowed position, providing an immediate prompt to the operator to insert the locking pin at the desired height. This Design was developed to 'engineer out' the potential for this or a similar incident to occur.

The return to open position of the release valve is achieved via the introduction of a rotary spring actuating the release mechanism via the installation of a single bolt utilised as a member for the tail of the spring to a react against. The other end of the spring is secured around the existing tang of the release valve locking mechanism (as per below picture).

The configuration adopted ensures that the control valve remains in the 'open' position at all times without the application of maintained manual pressure to close the valve and hold pressure. A 'return to open' configured return valve on the EDMO Jacking Stands significantly reduces the potential risk of persons not installing the supporting/locking pin with the stand in a raised position, ultimately presenting what is a simple engineering design at minimal cost, providing the most effective control of risk (Engineering Control - Reduced Likelihood).

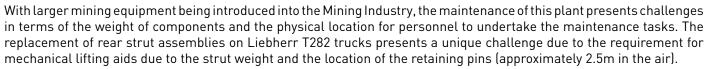




# Liebherr T282 - Rear Access Platform

# Peabody - Millennium Mine

#### The Problem

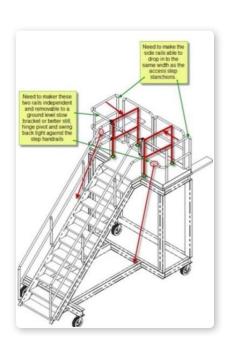


This requires the use of access systems in proximity to lifting equipment and the use of working at heights equipment/permits to allow the removal of these struts, substantially increasing the risk of equipment interaction/damage and injury through poor access and interaction with equipment.

#### The Solution

A review of the current process for replacing rear struts and access systems utilised to perform this task was undertaken by the workforce. Based on the documented risks and methodology of the task, a proposal was put forward to design and engineer a multi-purpose access platform for the rear of the Liebherr T282 truck so as to allow for this task to be carried out without the exposure to a fall and the use of working at heights equipment.

The platform had to allow both left and right struts to be removed from the truck without exposing a worker to a potential fall or require a Working at Heights permit and safety equipment to be used, whilst incorporating access for lifting equipment and the ability to physically remove the strut whilst the platform was in place. Site workforce members worked with RicBuilt to draft conceptual drawings of the stand, which were reviewed on site against the work methodology and refined over several iterations until the design was assessed to allow the full requirements of the task to be completed without exposing a worker to an exposed/unprotected edge. Key to the design was also how to reconfigure the platform for lifting equipment access and not expose an individual to a potential fall.





# **Working at Height Solution Maintaining Haul Trucks**

# AAMC Capcoal – HME Maintenance Department



In order to conduct maintenance on haul trucks, coal mine workers require access to sections of the machine which expose employees to falling from heights risks.

#### The Solution

The team comprising a cross section of the HME workforce, were given a clear scope. This ensured that a comprehensive understanding of the design parameters required were factored in. The design parameters were to:

- Eliminate the risk of falling from heights;
- Provide an engineering control for musculoskeletal injuries by providing a stable walkway/platform to access certain areas on the machines.

#### **Benefits**

The working at heights platform and walkway system provides the coal mine worker with a robust design which:

- Eliminates the potential to fall from heights;
- Allows access to the work area without the need to climb over components whilst carrying parts and tools;
- Prevents the CMW from having to wear working at heights PPE;
- Prevents exposure to sharp edges;
- Improves the ergonomics for the maintainers of the ultra-class trucks;
- Provides maintainers with a consistent method of accessing such areas on all trucks whilst at the industrial area:
- Had a total cost \$100,000 with payback period of 12 months.



View from Pos 2 at ground level

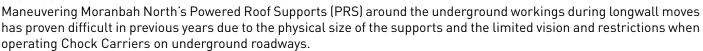


View showing access down onto chassis rail

## **Chock Carrier Remote Pendant**

**Anglo American: Moranbah North Mine** 





The Chock Carriers were purchased with rear reversing cameras however provided limited visibility so it was near impossible to gauge depth perception when reversing these machines around corners or along the installation face. A considerable amount of equipment damage had been encountered and it was observed that operators were sitting on the door of the Chock Carrier in an attempt to gain greater visibility when reversing the machines (Figure 2).

The 'Chock Carrier Remote Pendant' was then developed as an engineering solution to eliminate the risk of injury to personnel and equipment damage by providing all the controls and interfaces to successfully maneuver the machine from outside the operator's cabin while maintaining all the relevant safety requirements.

#### The Solution

The solution was to design a remote pendant on an umbilical arm that would allow the operator to control the machine outside the operator's cabin whilst providing a barrier to prevent the operator entering any crush zones (Figure 3 & 4).

The Chock Carrier Remote Pendant has been successfully trailed during the last longwall move at Moranbah North Mine. It is an innovative solution designed to improve operators' safety and vision when maneuvering chock carriers underground. With minimal modifications the pendant can be used in many applications where remote control of mobile equipment is required.



Figure 1: Loaded Chock Carrier



Figure 2: Operator sitting on cabin door reversing



Figure 3: Chock Carrier Remote Pendant

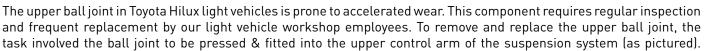


Figure 4: Operator Controls

# Toyota Hilux Upper Ball Joint Service Tool

# **Rio Tinto - Weipa Operation**





The removal of the ball joint required mechanics to block the upper control arm to limit its upward travel and then make heavy hammer strikes to force the ball joint out. This removal method posed significant Hand Red Zone (HRZ) and ergonomic risks to the tradesperson completing the task.

#### The Solution

To address the significant HRZ and ergonomic risks, the light vehicle mechanics have designed and fabricated purpose built tools:

- 1. Ball joint removal press. (as pictured)
- 2. Ball joint installation puller (as pictured)

These purpose built tools have eliminated the HRZ risks as there is now no need to use a hammer and block to remove the ball joint. In addition the ball joint is unable to escape the special removal and installation tools ensuring that all stored energy is controlled throughout the process. The tooling furthermore has reduced replacement time on our fleet of 168 Toyota Hilux by up to 75% - task has been reduced from 90 minutes to 25 minutes.



Figure 1: Tradesperson using a heavy hammer to strike to force the ball joint out



Figure 2: Ball Joint Removal Press

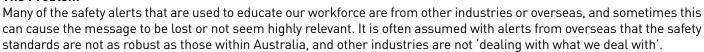


Figure 3: Ball Joint Installation Puller

# **Newlands Safety Video**







As a site we were looking at what we could do to engage our people? How do we create something that is real for them, something familiar? Something close to home. In short, how do we make the message personal!

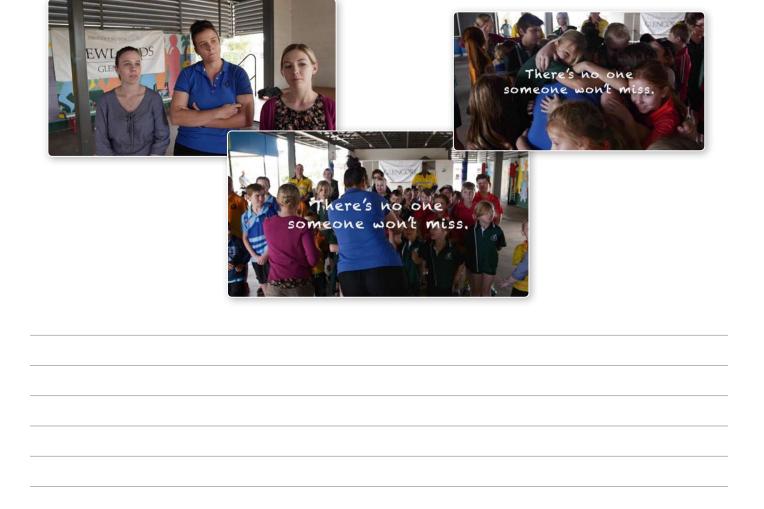
#### The Solution

We have created a safety message that is both personal and tailored to our workplace. Inspiration came in the form of a heart-wrenching Road Safety Video from the Victorian RTA with a view to map it to workplaces.

With the support of the Senior Management Team, the Health Safety & Training Department began work on creating the video. In order for it to be effective it was essential that it was as personal as possible. The creation of the video would require the involvement of at least forty people and, knowing that withdrawing this type of number from operations was unrealistic, another avenue had to be found. After some thought the answer was simple - if we cannot use our people, let's use their families and make it even more personal!

This was advantageous in we could pull further on heart strings using the workers' children as well as incorporating the local school into the project. We now had a project that was not only site-based but community-based. After meeting with the local school to gain support the project was ready to proceed and a local film maker was engaged to create the video.

On completion, the Safety video was rolled out across site in meetings and Toolbox Talks.



# **Caustic Pipework to CIP Tank**

Incitec Pivot Limited - Phosphate Hill Operations.



#### The Problem

Caustic is required for the high pH clean on the RO membranes. Since there is currently no permanent caustic pipework to the tank, the operator uses a 10L open chemical bucket to transport the caustic to the RO CIP tank. Once at the CIP tank, the caustic solution is manually dosed using 250ml increments to partially raise the cleaning solution to desired pH level of 11.5 to 12.5. There are three present risks that have been identified with this task. These are:

- The frequency/demand of the high pH clean on the RO membranes.
- The nature of caustic solution, which freezes at 12degC.

No serious injuries have occurred from this caustic transfer but this is a high risk task.

#### The Solution

A comparison of the different options was completed, with a basis of effectiveness on reducing risks, operator interaction/involvement, simplicity, capital costs, and ongoing costs. The option, to install a new caustic line between the caustic and the CIP tank was the preferred option.

Installation involved, installing a hard-pipe line from the existing discharge of the caustic regen pump to transfer caustic solution to utilise the existing caustic pumping system.

This option eliminated the HSE risks associated with manual handling, spilling or personnel contact with the caustic solution.

#### **Benefits**

The installation of the install a new caustic line between the caustic and the CIP tank has resulted in removing the following HSE risks:

- 1) Health and Safety Lost Time Injury associated with a chemical burn to the operator if they were splashed with caustic solution.
- 2) Health and Safety Minor Injury. The minor injury associated with the manual handling of the caustic solution.
- 3) Environmental Loss of Containment. The loss of containment during the decanting process.



Caustic Chemical Storage



New Frame for Decanting Caustic

# 2017 Hay

# **BSL Lifting Aid (AKA "Big Foot")**

# **Anglo American**

Over time, Longwall BSL outbye sections have amplified in both weight and overall dimensions resulting in increased manual handling as well as the requirement of Coal Mine Workers (CMW's) having to work in restricted zones to operate 10 tonne chain blocks.

It was identified that a more fit for purpose piece of equipment was necessary to lift outbye sections of the BSL. Several prototype lifting devices were developed and trialled prior to finally settling on the BSL Lifting Aid (AKA "Big Foot").

Following a detailed change management, risk analysis and the procedures developed, the final stage of surface testing was successfully conducted.

As far as our Business is aware, there is currently nothing available on the market that has the capacity to lift the 67 tonnes required for the BSL outbye component to install a BSL boot-end in a safe and controlled manner.

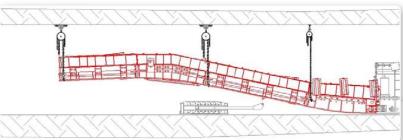


Figure 1 - Conventional BSL Outbye sections installation using elephant feet and 10t chain blocks



Figure 3 - Assembled Lifting Aid ready to be placed under BSL section

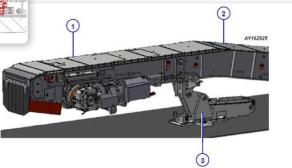


Figure 2 – BSL Lifting Aid installed under BSL outbye section including BSL chain, gear box motor and dust hood

## **Permit to Work Hut**



# 2017 SAFETY CONFERENCE OF THE STAFETY CONFE

#### The Problem

Delays in permit issuing, miscommunication around SIMPOS of concurrent permits and a general lack of control around Incitec Pivot's Permit to Work System. This had the potential to result in safety issues through failure of the permit to work process resulting in a process safety events and loss of production.

#### The Benefit

Phosphate Hill generates and uses 100's of permits for high risk activities, during maintenance and shutdown activities. The benefits:

- 1. Reduced time it takes to issue permits
- 2. Electronic and manual way of tracking permit in operations and where concurrent activities take place.
- 3. More stream lined process to reviewed or monitored for auditing purposes permit to work activities in the plant.

### The Solution

A purpose built design Permit to Work Hut to incorporate the change in thinking towards removing field boxes and the new Global Permit to Work system being rolled out across site.



Old Permit to Work room



New Permit to work room

**Notes** 



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# Index - Concurrent Papers



Page 72

Page 73

# **INDEX**

		TEIT O
Pavilion Ballroom	10.45 – 12.15pm	
SHARING EXPERIENCES		
10.45 - 11.15am 11.20 - 11.45am 11.50 - 12.15pm	Petrie Dust Management The Power of Collaboration - Strengthening Our Drug and Alcohol Testing Regime Diet and its Role in Mental and Brain Health	Page 60 Page 61 Page 62
Southport Room 1	10.45 – 12.15pm	. a <b>g</b> o o_
SAFETY TRAINING WOR	-	
10.45 – 12.15pm	Better Training – Better Outcomes	
Coolangatta Room	s 1 & 2 10.45 – 12.15pm	
EXHIBITOR PRESENTAT	IONS	
10.45 – 12.15pm	ATOM Inventory Control Solutions Calibrate Your Ass-O-Metre and Measure Haul Road Friction Contractor Management Spreadsheets is so 1990's Should the Hierarchy of Hazard Controls be Turned Upside Down? High on the Job? – Drug Use in the Workplace Changes to Glove Standards EN388 and EN374 – What Does It Mean To You? Lone Worker – Connected Safety Monitoring MSA Altair 4XR & MSA Connect App – Portable Gas Detection with Bluetooth	
Pavilion Ballroom	1.15 – 2.45pm	
IMPACTS ON WORKPLA	CES	
1.15 – 1.45pm	White Ribbon Australia: The Benefits of Workplace and Community	
	Built on Respect and Equality	Page 63
1.50 – 2.15pm 2.20 – 2.45pm	Coal Mine Workers' Health Scheme Reform Milestones in Safety - The Question of Fatigue	Page 64 Page 65
Southport Room 1	1.15 – 2.45pm	
EXPLOSIVES ISSUES		
1.15 – 1.45pm	Security of Explosives	Page 66
1.50 – 2.15pm 2.20 – 2.45pm	Porgera Mine Explosives Explosion – Sharing My Story  Learning from the Angellala Creek Ammonium Nitrate Vehicle Explosion	Page 67 Page 68
2.20 <b>-</b> 2.45pm	Learning irom the Angettata Creek Ammonium Nitrate Venicte Explosion	raye oo
Southport Room 2	1.15 – 2.45pm	
UNDERGROUND COAL		
1.15 – 1.45pm	The Underground Installation of Tube Bundle - The Underground Learnings	Page 69
1.50 - 2.15pm 2.20 - 2.45pm	Task Group 4 - Stories of the Past and Present 40 Years in Mining - My Story	Page 70 Page 71
2.20 21-70piii	To real out thining 1-17 octor y	rage / r
Southport Room 3	1.15 – 2.45pm	

Is Voluntary the New Mandatory? The Application of Guidance Material

Privacy - Too Much (Health and Safety) Information

**LEGAL LEARNINGS** 

1.15 - 1.45pm

1.50 - 2.15pm

# **Concurrent Papers – Index**



# **INDEX**

<b>Pavilion Ballroom</b>	3.15 – 5.15pm	
METALLIFEROUS		
3.15 - 3.45pm	Underground Loader and Light Vehicle Interaction Emergency Drill	Page 75
3.50 - 4.15pm	Mines Rescue Skills Maintenance and Community Development Case Study	Page 76
4.20 - 4.45pm	Worksite Health and Wellbeing - More than Fitness Programs and Fat Workers -	
	Future Proofing your Business and your People	Page 77
4.50 - 5.15pm	Managing a High Risk Orepass Hang-up Using Hierarchy of Controls	Page 78

# Southport Room 1 3.15 - 5.15pm

## COMMUNICATION

3.15 - 3.45pm	Instant Communication: Automatic Notifications: Accurate Reporting: Safer Operation	Page 79
3.50 - 4.15pm	Reflections of an Inspector on Communication and the Impact on Safety and Health	Page 80
4.20 - 4.45pm	Control Room Alarms – Stay Alert, Don't be Alarmed	Page 81
4.50 – 5.15pm	The Psychology of Homeostasis - Why Smart Technology Makes Us Dumb and Dumber	Page 82

# Southport Room 2 3.15 - 5.15pm

#### SAFETY LEADERSHIP

3.15 - 3.45pm	Geotechnical Hazards Awareness in Leica Mineops System	Page 83
3.50 - 4.15pm	Creating a Culture of Care Through a Safety Field Leadership Program	Page 84
4.20 - 4.45pm	What Aspects of Leadership are Important in Behavioural Programs?	Page 85
4.50 - 5.15pm	Fatigue Management Case Study from Cowal Gold Mine	Page 86

# Southport Room 3 3.15 - 5.15pm

## DNRM

3.15 - 3.45pm	Respirable Dust Exposure Database - Assessing Trends in Queensland's Coal Mines	Page 87
3.50 – 4.15pm	Occupational Health Thresholds for Mine Sites -	
	The Status of Respirable Crystalline Silica and Lead Hazard Regulation	Page 88
4.20 - 4.45pm	Intrinsically Safe Circuit Issue	Page 89
4.50 - 5.15pm	Managing Contractors in Mining - Understanding the Factors Underlying the Safety Statistics	Page 90



### SHARING EXPERIENCES

# ▲ Concurrent Paper 10.45 – 11.15am

# **Petrie Dust Management**

**Presenter: David Hartzer Author: David Hartzer** 

**Organisation: Boral Construction Materials** 

Boral's Petrie Quarry is an established hard rock quarrying operation north of Brisbane which produces approximately 1Mt per annum. It is a Greenstone deposit which contains the mineral Actinolite. This mineral is known to have the potential to contain elongated mineral particles.

In order to manage this potential risk, Boral has developed and implemented a comprehensive Dust Management Plan for the site. This presentation shares the practical steps implemented at Petrie Quarry to reduce airborne respirable

dust exposure to its employees and contractors and provides an insight into the technology, practises and cultural shift required throughout the site to achieve an industry best practice outcome.				
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#### SHARING EXPERIENCES

# Concurrent Paper 11.20 – 11.45am

# The Power of Collaboration - Strengthening Our Drug and Alcohol Testing Regime

Presenter: Sean Milfull **Author: Sean Milfull** 

Organisation: BHP Billiton Mitsubishi Alliance - Peak Downs Mine

TIn late 2015, Peak Downs Mine implemented a revised drug and alcohol testing regime that is closely aligned to the process utilised by the QLD Police Force on our public road network. The program was developed in close consultation with our employees, active participation from industry experts and also involved a thorough training and awareness campaign.

Looking forward 18 months, we now have a testing system that is simple, accurate, adaptable, mobile and well accepted by our workforce. Whilst it may be alarming to some, we have seen an increase in the number of nonnegative (positive) results, however it is acknowledged that our testing capabilities have drastically improved with the new technology and the likelihood for presenting to work under the influence of drugs or alcohol will result in detection and subsequent consequence.

It is recognised that drug and alcohol dependency are treatable conditions and our employees are encouraged to seek

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#### SHARING EXPERIENCES

# ▲ Concurrent Paper 11.50 – 12.15pm

# Diet and its Role in Mental and Brain Health

Presenter: Felice Jacka **Author: Felice Jacka** 

Organisation: Food and Mood Centre, Deakin University

With depressive disorders, the leading source of disability globally, the identification of new targets for prevention and management is imperative. The 20th century has seen major shifts in dietary intakes globally, with a marked increase in the consumption of sugars, snack foods, take-away foods and high-energy foods. At the same time, the consumption of nutrient-dense foods, such as high-nutrient vegetables and raw fruits, is diminishing. Unhealthy diet, as a key contributor to the high prevalence noncommunicable diseases, is now recognised as the leading risk factor for early mortality globally. However, there is now overwhelming body of evidence to tell us that unhealthy diet is also a key risk factor for psychiatric illnesses, including depression, anxiety and dementia.

Taken together with the evidence concerning the influence of physical activity and smoking on the risk for and treatment outcomes in many mental disorders, these findings highlight the fact that while "there is no health without mental health", the opposite is also true.

Professor Jacka has pioneered and expedited the development of a robust body of evidence regarding the influence of lifestyle behaviours, particularly diet, on common mental disorders and is now recognised as a research leader in this field. In this presentation, she will provide an up-to-date, critical assessment of the evidence regarding the impact of diet quality on depression, anxiety across age groups and countries. She will then address the rapidly developing evidence base pointing to diet as a critically important and modifiable risk factor in parents prior to conception and in pregnant mothers and their children. She will particularly focus on the new evidence for the microbiome-gut-brain axis in mood and behavior. Finally, she will discuss new evidence for diet as a clinical strategy for improving mental and brain health and address the future research imperatives in this field.

Take home message: Extensive evidence now supports associations between diet quality and the common mental disorders, depression and anxiety. Preliminary experimental evidence also suggests that dietary improvement can both prevent and treat depression. Nutrition preconception and during pregnancy is of substantial relevance to mental and brain health outcomes in children. Mechanisms relate particularly to the gut and its resident microbiota. There is enormous potential for both clinical and public health interventions focused on nutrition for the prevention and treatment of mental, neurodevelopmental and neurodegenerative disorders.

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#### IMPACTS ON WORKPLACES

# ▲ Concurrent Paper 1.15 – 1.45pm

# White Ribbon Australia: The Benefits of the Workplace and Community Built on **Respect and Equality**

**Presenter: Simon Earle Author: Simon Earle** 

Organisation: White Ribbon Australia and Maritime Employees Training Ltd (METL)

This presentation is an opportunity for you hear from Simon Earle, one of our long-standing White Ribbon

White Ribbon is the world's largest movement of men and boys working together to end men's violence against women and girls, through promoting gender equality, and creating a positive vision of masculinity through role modelling for men and boys here in Australia.

We highlight the positive role men and boys play in preventing men's violence against women and support them to be part of this social movement.

Ambassadors, as he shares his story, and the journey he has taken to incorporate the White Ribbon message in his

personal and professional capacity to proactively engage men to end all forms of men's violence against women in Their homes, the community and the workplace.				
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#### IMPACTS ON WORKPLACES

# A

# Concurrent Paper 1.50 - 2.15pm

## Coal Mine Workers' Health Scheme Reform

Presenter: Heidi Roberts Author: Heidi Roberts

Organisation: Department of Natural Resources and Mines, Mine Safety and Health,

**Coal Workers' Pneumoconiosis Project Team** 

The Coal Mine Workers' Health Scheme (the scheme) aims to protect the health of Queensland coal mine workers by ensuring that all coal mine workers undergo periodic health assessments. The scheme is regulated under chapter 2, part 6, division 2 of the Coal Mining Safety and Health Regulation 2001.

On 13 May 2015, a confirmed case of coal workers' pneumoconiosis (CWP) was reported to the Department of Natural Resources and Mines (DNRM). Prior to this, there had been no cases of CWP reported to the department for many years.

In January 2016, the Minister for State Development and Minister for Natural Resources and Mines released a five-point plan, including engaging the Centre for Occupational and Environmental Health at Monash University to undertake a review of the respiratory component of the scheme.

The Monash review, released 13 July 2016, found structural failings in the design and operation of the respiratory component of the scheme. In particular, the report identified concerns regarding the quality, reading and reporting of chest X-rays; the quality and reading of spirometry; failings in the handling of health assessment records; and the failure of the scheme to adequately survey the respiratory health of the workforce.

DNRM supports all 18 recommendations of the Monash review in order to protect the health of coal mine workers and to restore workers' confidence in the scheme.

In order to deliver on the recommendations, the department is working closely with stakeholders, on five key areas:

- chest X-rays
- spirometry
- medical practitioners
- surveillance
- digital records management.

his paper summarises reforms being made to the scheme, to ensure best-practice health monitoring ind endures.	ce health monitoring is implemented		
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# **IMPACTS ON WORKPLACES**

# ▲ Concurrent Paper 2.20 – 2.45pm

# Milestones in Safety - The Question of Fatigue

Presenters: Naomi Rogers and John Tate **Authors: Naomi Rogers and John Tate** 

Organisations: Crown Law and University of Sydney

lard work, long hours and shift work are the norms of the mining industry. The inconvenient truth is that human iology reflects the human condition – there is a design envelope that constrains possibility, probability and erformance. Fatigue is a symptom of the biological envelope and the environment in which we live and work. In ecent years, the question of legal liability for fatigue related accidents has gained prominence. There have been oronial inquests and, most recently, a personal injuries case where legal liability was sheeted home to an employer or a motor vehicle accident, where the injured worker was driving home after completing four consecutive 12 hour ight shifts. The ability to drive safely whilst fatigued and the risk of falling asleep at the wheel is obvious to all. Milestones in history provide points for reflection. The industry has reached a milestone in relation to the management of fatigue. This presentation on the 'Milestones in Safety – The Question of Fatigue' is aimed at promoting industry effection on the science and the moral obligations of a significant and evolving safety and health issue.	
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#### **EXPLOSIVES ISSUES**

# ▲ Concurrent Paper 1.15 – 1.45pm

# **Security of Explosives**

**Presenter: Noel Erichsen** 

**Authors: Martin Land and Haydn Isaac** 

Organisation: Department of Natural Resources and Mines, Mine Safety and Health,

**Explosives Inspectorate** 

Security of explosives remains an important monitoring priority for the Explosives Inspectorate. The current security risk in Australia indicates that Australia's National Terrorism Threat Level remains PROBABLE.

Credible intelligence, assessed by our security agencies, indicates that individuals or groups continue to possess the intent and capability to conduct a terrorist attack in Australia.

This paper reviews the current security situation, what explosives are being recovered from the community, examples of significant explosives security incidents and provides information, guidance and links to improve the security of explosives.

Proposed security changes to legislation will be discussed and how the changes will affect persons using explosives. The paper will include an update on the specific explosives security program started in March 2017.						
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# **EXPLOSIVES ISSUES**

# ▲ Concurrent Paper 1.50 – 2.15pm

# Porgera Mine Explosives Explosion – Sharing My Story

**Presenter: Andrew Clough Author: Andrew Clough** 

**Organisation: Peabody Australia** 

On 2nd August 1994, Dyno Wesfarmers Limited (DWL), Papua New Guinea (PNG), explosive manufacturing facility at the Porgera Gold Mine was totally destroyed by two explosions, with the loss of eleven lives. Extensive damage was done to nearby mine facilities and numerous mine employees suffered other injuries. Two out of thirteen DWL employees survived the first explosion because they were working inside storage containers at the time. This accident claimed the lives of 11 people.
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## **EXPLOSIVES ISSUES**

# ▲ Concurrent Paper 2.20 – 2.45pm

# Learning from the Angellala Creek Ammonium Nitrate Vehicle Explosion

Presenter: Ryan Brogden **Author: Ryan Brogden** 

Organisation: Department of Natural Resources and Mines

On the 5 September 2014, a truck carrying ammonium nitrate was involved in a single vehicle accident on the Mitchell Highway, 30 kilometres south of Charleville in Central Queensland. The truck came to rest in the creek bed adjacent to a road bridge and caught fire, burning for over one hour before the load of ammonium nitrate exploded. Miraculously there were no fatalities; however, eight people nearby sustained injuries, some seriously. The road and rail bridge over Angellala Creek were destroyed and nearby vehicles seriously damaged. The truck carrying the ammonium nitrate was completely destroyed with over 2500 pieces of debris scattered up to one kilometre from the blast site.

The Explosives Inspectorate from DNRM conducted an investigation into the cause of the fire and explosion.

Lead Investigator Ryan Brogden will discuss the incident, investigation findings and implementation of the recommendations. Currently the design of ammonium nitrate vehicles is being reviewed nationally and internationally
The learnings from this incident may be applicable to vehicles on a mine site.
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### UNDERGROUND COAL

# A

# **Concurrent Paper** 1.15 – 1.45pm

# The Underground Installation of Tube Bundle – The Underground Learnings

Presenter: John Lennon Author: John Lennon

**Organisation: Lennon Training** 

The integrity of the goaf monitoring systems in underground coal mines is paramount. The tube bundle system of monitoring goafs and inaccessible waste areas has been around since early 20th, and while there are published works and several papers, dedicated to the installation, maintenance and integrity testing of this system, the focus of those works tend to be on the hardware on the surface and the software utilised to interpret the resultant data.

This paper shall present the method of, and the rationale behind, the installation of the underground tube component of the tube bundle system at Rio Tinto's Kestrel Mine. It shall include the challenges, such as mobile equipment

used tube damage, ventilation induced tube damage, joint leakage and restricted access to tube and samed the relevant controls for those challenges. It is vital that the underground component of the tube bundle aintains its integrity to maintain the integrity of the data used to assess the state of the mines sealed area	e system
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#### **UNDERGROUND COAL**

# A

# **Concurrent Paper** 1.50 – 2.15pm

# Task Group 4 to - Stories of the Past and Present

Presenter: Nikky LaBranche Author: Nikky LaBranche

Organisation: Department of Natural Resources and Mines, Simtars Division

Following the 1994 Moura No. 2 underground coal mine disaster, the Warden's Inquiry established five working parties to address changes that needed to be made to prevent future disasters. Task group 4 (TG4) was charged with reviewing self-escape and aided rescue. The Chief Inspector has convened a cross-state group of professionals to serve on the new Task Group 4 Working Party.

TG4 has implemented critical recommendations including the legislated requirement to have self-contained self-rescue devices. Recommendations are still relevant today, such as post-incident monitoring data and communication.

he current TG4 working party is expanding its scope to add new issues that are relevant to industry needs.  This pape Eviews the history, current scope, and progress of TG4 incorporating current research and the learnings from Level 1	
mine emergency exercises.	
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## UNDERGROUND COAL

# A

# **Concurrent Paper** 2.20 – 2.45pm

# 40 Years in Mining: My Story

Presenter: Martin Watkinson
Author: Martin Watkinson

Organisation: Department of Natural Resources and Mines, Simtars division

My story covers 40 years of coal mining experience from my early days in the UK National Coal Board as a mining engineering trainee in the North Yorkshire area, to my time as an international mining consultant in India, China, Vietnam, Tanzania and Siberia and of course my experiences at operational coal mines in Australia.

The particular focus of the paper will be on the training schemes that were in place for graduate engineers both in Australia and the UK – the UK used to recruit over 200 graduates every year.

ne paper covers operational observations and experiences as well as interactions with unions and inspectorate and y experiences as a ventilation officer.	
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#### LEGAL LEARNINGS

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# Concurrent Paper 1.15 - 1.45pm

# Is Voluntary the New Mandatory? The Application of Guidance Material

**Presenter: Matthew Smith** 

Authors: Matthew Smith and Laura Regan Organisation: Sparke Helmore Lawyers

Recognised Standards and Guidelines are at the pinnacle of the legislative framework when it comes to putting in place the day-to-day measures necessary to ensure the health and safety of workers at Queensland mines sites.

These documents provide the practical steps and measures a mine can follow when managing a given hazard or risk to ensure that risk is within acceptable limits and as low as reasonably achievable.

If an incident does occur, Recognised Standards and other guidance material can provide evidence of what is known across industry about a hazard or risk, risk assessment or risk control. In this way, they can provide evidence of what could reasonably have been done, but was not.

Through an analysis of case law and real scenarios this presentation will provide attendees with an understanding of

But not all guidance material is created equal in the eyes of the law and it can be difficult to distinguish those measures that must be followed from purely voluntary guidance.

when and how guidance must be applied, the implications of deviating from guidance and the safe guards to ensure isk is at an acceptable level regardless of whether guidance is or is not followed.		
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#### LEGAL LEARNINGS

# A

# Concurrent Paper 1.50 – 2.15pm

#### Privacy - Too Much (Health and Safety) Information?

Presenter: Lucy Bochenek
Author: Lucy Bochenek

Organisation: Organisation to Clyde & Co

Health and safety management is increasingly interested in personal information.

One reason for this is the concerted focus on health and wellbeing – and a business desire to address issues such as disease, mental illness, fatigue management and substance use.

Another reason for this is the expansion of technologies such as wearables and mobile devices which blur the boundary between work and personal activities.

But what does the law say about the relationship between our personal and work lives? Principles are rapidly emerging in this field. From health monitoring to insurance, superannuation and privacy data regulation, the law is developing apace.

Industry needs to get better at collecting and using personal information in order to be able to solve key safety and health challenges for the next generation. Only with ethical and lawful handling of health and safety relevant personal information can we get to the heart of the major health hurdles we want to address, and earn the trust of those we want to help.

In her paper Lucy Bochenel will outline the law which applies to sharing health and safety relevant personal

information in the mining industry, and present practical guidelines for handling information appropriately.			
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#### **METALLIFEROUS**

# ▲ Concurrent Paper 3.15 – 3.45pm

### Underground Loader and Light Vehicle Interaction Emergency Drill

**Presenter: Aaron Harrison Author: Aaron Harrison** 

Organisation: Ernest Henry Mining - A Glencore Company

Ernest Henry Mining is a highly mechanised sublevel cave operation that has significant exposure to mobile equipment interactions. Load-haul-dump (LHD) units operate on each production level which is also accessed by multiple personnel during each shift. Due to the layout of the production levels and need to access active production areas, interaction between LHD's and other personnel is unavoidable and administrative controls relied upon to control this hazard.

Under controlled conditions, a mock scenario was set-up in which a fully loaded CAT R3000 LHD (of 80 tonnes) contacted a light vehicle containing two "crash test dummies". The purpose of the scenario was to demonstrate to site personnel the likely consequence of the vehicle interaction and test the site emergency response to a realistic vehicle interaction incident.

This presentation will discuss the setup of the scenario and the result of the vehicle interaction. Footage from

a number of perspectives including the LHD and light vehicle operator demonstrates the high potential of such incidents. Details of the site emergency response to the scenario are also provided as well as learnings from the exercise.			
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#### **METALLIFEROUS**

# ▲ Concurrent Paper 3.50 – 4.15pm

#### Mines Rescue Skills Maintenance and Community Development Case Study

**Presenter: Simon Delander Author: Simon Delander** 

**Organisation: Evolution Mining** 

We all value and understand the importance of having good emergency response plans and response teams in place should there be an emergency situation at a mine site.

While we are all pleased with the continued lowering frequency of large scale mine site emergencies, how do we maintain the skills, competency and interest of our emergency response teams, both volunteer and professional? Inside and outside our organisation?

This paper is a short case study of a model used for developing emergency response teams' capabilities within

Evolution Mining and the potential flow on benefits to our local communities we operate within.			
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#### **METALLIFEROUS**

# ▲ Concurrent Paper 4.20 – 4.45pm

### Worksite Health and Wellbeing - More than Fitness Programs and Fat Workers. Future Proofing your Business and your People

**Presenter: Daniel Wakelin Author: Daniel Wakelin Organisation: HBP Group** 

It is currently speculated that the majority of Australians have less than a 50% chance of still being engaged in the workforce post age 60. The key determinant of workforce participation is Health. We need to ensure we can hold on to our workers for longer and support them to improve and maintain their health and function at any age.

The presentation will examine the stark data facing industry with regards to health status and age demographics, and the associated risk of illness / injury. It will also look at a current Evolution Mining Health, Injury and Fatique Risk Mitigation Program and discuss:

- The methodology used that differs from traditional programs
- The engagement of the workforce to support lasting change
- The importance of attacking the high risk members of the work force (be that physical/psychological health)
- The vital need to address the vast majority of workers who will become high risk in the next 10 years (if no intervention provided).

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#### **METALLIFEROUS**

# ▲ Concurrent Paper 4.50 – 5.15pm

### Managing a High Risk Orepass Hang-up Using the Hierarchy of Controls

**Presenter: Aaron Harrison Author: Aaron Harrison** 

Organisation: Ernest Henry Mining – A Glencore Company

Mine production at the Ernest Henry sublevel cave utilises a number of orepasses to transfer material from production levels to the underground crusher. Every year, over 6Mt of material is handled through the ore pass network. For various reasons, orepasses can be come blocked, in what is known as a hung-up. Severe hang-ups can consist of up to 100m of broken rock suspended above the blockage. Once dislodged, this material can eject large distances from the bottom of the pass.

This presentation details how a severe hang-up was removed over a 35-day period. The pass was unblocked using a

combination of explosives, directional drilling and water injection with personnel safely managed using the hierarchy of controls. Saturation of the material contained within the pass was of significantly higher risk compared to other blocked passes due to the potential for a mudrush event. This presentation discusses how the risk assessment process was used to successfully remove the hang up and subsequent saturated material from the pass.
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#### COMMUNICATION

# ▲ Concurrent Paper 3.15 – 3.45pm

# Instant Communication: Automatic Notifications - Accurate Reporting - Safer Operation

**Presenter: Larnie Mackay Author: Larnie Mackay** 

Organisation: Anglo American Australian Underground Operations

How often has important information failed to be passed on, let alone in a timely manner, due to individual interpretation of important, perceived time constraints leading to minimalised reporting, rushed End-Of-Shift Handovers or lack of memory retention?

Wouldn't it be fantastic to utilise technology to have live data and documentation at hand for safety and production requirements, instantly communicate underground conditions whilst conducting routine inspections (i.e. telltale readings, etc.), automatically notify identified persons/positions both on surface and underground to address anomalies, showcasing identified hazards instantaneously together with pre-populating shift and upstream reports from one data source.

Let's remove paper-based reporting and human perception to significantly improve our Underground Coal Operations via an Intrinsically Safe (IS) Tablet for effective detailed shift-plan communication that is linked to our SHMS ensuring our people have everything at their fingertips, access to equipment manuals/drawings for efficient fault-finding, system generated Trigger Response Actions aligned to our SHMS as well as time management and data accuracy constructing reports capturing equipment and environmental data all from one live source.

Anglo is committed to technology advancement implementing a System Architecture Model whilst working with an Australian Company to deliver an Underground IS Tablet with no data ownership issues.		
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#### COMMUNICATION

# ▲ Concurrent Paper 3.50 – 4.15pm

### Reflections of an Inspector on Communication and the Impact to Safety and Health

**Presenter: Damian Lee Author: Damian Lee** 

Organisation: Department of Natural Resources and Mines, Mines Safety and Health,

**Mines Inspectorate** 

Damian Lee has been an inspector for nearly a decade. This paper is his reflection on a number of recurring themes that he has observed across all sizes of operation from 10 man operations to multinationals.

Core among these themes is the issue of communication. In particular the development and application of safety and health management systems has experienced many issues because of the lack of understanding of its purpose in safety. Additionally there have been issues in the identification, communication and subsequent implementation of critical controls due to communication barriers.

paper seeks to nighlight examed uncertainty and concern ar	nong workers.			
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#### COMMUNICATION



# ▲ Concurrent Paper 4.20 – 4.45pm

### Control Room Alarms - Say Alert, Don't be Alarmed

**Presenter: Jennifer McIntosh** 

Authors: Jennifer McIntosh, Ian Bridgeman, Matthew Smith, Andrew Blower, Natasha Herrington, Lance Scotton, Andrew Adamson, Darryl Armstrong, Rebekah Davies and **Peter Craig** 

Organisation: BHP Billiton Mitsubishi Alliance and Lendlease

Imagine being an operator in a mine site control room which was being inundated with thousands of alarms per day. Some of these alarms could signify conditions that, if not actioned quickly enough, could lead to harm of the colleagues whom you promised to keep safe. Alarm fatigue and becoming desensitised to high volumes of alarms can increase operator stress levels and may lead to other unintended consequences. The leadership team within Minerals Australia and BHP Billiton Mitsubishi Alliance has recognised the significant opportunity in initiating alarm improvement projects across their operations to enhance safety.

At Broadmeadow mine, a simple but effective risk based approach was used to define, classify and prioritise existing control room alarms. The first stage of the project was able to align alarm performance with manageable levels resulting in an 80% reduction in alarm-rate. Prior to these improvements, the Broadmeadow control room was experiencing over 60 alarms per hour, 10 times the industry recommendation for a manageable amount of alarms. Subsequent improvement stages are underway to further enhance alarm performance and incorporate ongoing improvement ideas from control room operators.

This simple but effective approach to tackling excessive alarms is a must for any control room.		
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#### COMMUNICATION

# ▲ Concurrent Paper 4.50 – 5.15pm

#### The Psychology of Homeostasis – Why Smart Technology Makes Us Dumb and **Dumber**

**Presenter: Lincoln Eldridge** 

**Authors: Corrie Pitzer and Lincoln Eldridge** 

**Organisation: SAFEmap International** 

The introduction of technology into safety has a long and successful history, it is also the direction safety is going: more and smarter technology.

Our cars have become incredibly safe, Volvo plans to build the fatality free car by 2020, the "smartcar" is on the horizon with Google and Tesla making advances. Traveling by commercial airline is almost fatality free and the industrial world is awash with technology such as proximity alert systems, dynamic warning signals and systems that protect workers.

But these technologies make us take more risk!

Studies have shown that the introduction of compulsory safety belts and anti-lock brakes led to increases in speeding, banning texting on smartphones while driving led to increases in accidents. In sport, wearing helmets for protection led to increases in head injuries and the list goes on.

The theory of Risk Homeostasis has been given a lot of attention with many skeptics claiming the evidence base is no more than anecdotal.

This presentation will offer analysis of the theory and provide an outline of two experiments that were conducted with road construction workers and coal mine workers, with some frightening findings and conclusions, namely that technology influences behaviours to be more risky.			
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#### SAFETY LEADERSHIP

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# Concurrent Paper 3.15 - 3.45pm

#### Geotechnical Hazards Awareness in Leica Mineops System

**Presenters: Jafnie Muhsin and Stephanie Abell** 

Authors: Jafnie Muhsin, Stephanie Abell and Gift Makusha

Organisation: Anglo American Coal - Dawson Mine

Slope instability is a principal hazard in coal mines. Therefore the clear and effective communication of identified geotechnical hazards to coal mine workers is of utmost importance. Historically, geotechnical hazards at Dawson mine have been communicated to coal mine workers via notice boards, emails, pre-start meetings, mine plans, and delineation cones. However, a gap in this system was identified whereby hazards can be missed by Coal Mine workers/operators in the field when their work area changes regularly.

Leica Mineops is a fleet management system that has been installed on all equipment at Dawson Mine. The Geotechnical department identified an opportunity to utilise this system for the purpose of displaying existing geotechnical hazards on the Leica screens in all pieces of equipment. This system allows mine operators to view the spatial locations of existing geotechnical hazards and other relevant information on screen, greatly enhancing hazard awareness and management. Periodically and when new hazards are identified, information is updated by transferring identified hazards from a geotechnical database into Leica Mineops.

he inclusion of geotechnion he hazards in their workin	ng areas and the re	commended miti	gating controls.	'	'
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#### SAFETY LEADERSHIP

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# Concurrent Paper 3.50 - 4.15pm

#### Creating a Culture of Care Through a Safety Field Leadership Program

Presenters: Bobbie Foote and Ben Clarke Authors: Bobbie Foote and Ben Clarke

Organisation: BHP Billiton Mitsubishi Alliance

In 2015, BHP Billiton Coal recognised the need for a program to allow the company to reach the next level of safety performance. Deliverables for the program included a higher level of in field engagement and safety leadership. Over the past 18 months, we implemented the Field Leadership program, a tried and tested approach of leaders and team members spending more time 'in field' conducting positive conversations and identifying areas to improve safety.

The program is designed to develop a culture of care across our business, through positive interactions and reinforcement of safety culture. It plays a key role in verifying controls, and identifying system improvement opportunities.

The program has four layers, with each layer having a distinct and important function, being:

- Layered Audits- deep dive on processes to test system effectiveness
- Critical control observation- understanding effectiveness of controls to prevent fatal incidents
- Planned Task Observations- assessing whether work is done as intended, and improving quality and readability of procedures
- Take Time Talks- simple positive safety interactions demonstrating care and identifying safety ideas

Across our Coal operations we are now consistently conducting over 20,000 observations every month. In the first 18 months of the program we have seen a substantial improvement in safety performance, and faster sharing of safety improvement ideas across our company.

goal of everyone home safely, every day.		
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#### SAFETY LEADERSHIP

# Concurrent Paper 4.20 - 4.45pm

### What Aspects of Leadership are Important in Behavioural Programs?

Presenter: Cristian Sylvestre Author: Cristian Sylvestre Organisation: HabitSafe

In order for behavioural programs to be successful in the long term and achieve a positive safety culture change, it needs to be lead right. If people are not engaged in the process of change, any initiative has a pre-determined short shelf life even before it begins.

Leaders play an essential role in introducing a new initiative and making it sustainable to any organisation.

This presentation will recount the experiences of a global coal mining organisation with 10 sites in Australia

prementing a habit-focussed personal safety behavioural program. It will explore the aspects of leadership that the found to be helpful when introducing a new behavioural program as well as those that were helpful in achieving stainability. It will also explore the aspects of leadership that made success difficult to achieve at some sites as the havioural program was being introduced or made sustainable.
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#### SAFETY LEADERSHIP

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# **Concurrent Paper** 4.50 – 5.15pm

### Fatigue Management Case Study from Cowal Gold Mine

**Presenter: Simon Delander** 

**Author: Jamie Coad** 

**Organisation: Cowal Gold Mine** 

The story at Cowal Gold Mines begins with a number of fatigue related incidents in 2016 including two incidents involving micro sleeps in haul packs. From the subsequent investigation Project Arrive Alive was developed. This project involved the key issues of policy change, training, improved infrastructure and recruitment of technical experts. Project Arrive Alive initially focused on ensuring the whole workforce, including contractors understood fatigue.

We engaged an external expert on sleep how it affects your body and how outside factors influence sleep and fatigue. A psychologist was also engaged for training and to provide individual support to any employee that needed it.

A separate aspect of the project was to ensure that all employees only worked 14 hours or less door to door while on shift. This has been a challenge, but included reducing shift hours and specific points of hire for all new starters.

The next phase of the project involves engaging an exercise physiologist to engage with site employees for health and

Compulsory use of buses was implemented.

wellbeing checks and to provide a psychologist in the local town. People making Healthy Decisions.	The aim for the Cowal Gold Mines is to have Healthy
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#### DNRM



# Concurrent Paper 3.50 – 4.15pm

#### Respirable Dust Exposure Database - Assessing Trends in Queensland's Coal **Mines**

Presenter: Eliza Gill

**Authors: Eliza Gill and Fritz Djukic** 

Organisation: Department of Natural Resources and Mines. Mine Safety and Health.

Mines Inspectorate

Section 89 of the Coal Mining Safety and Health Regulation 2001 requires mines to monitor and control respirable dust.

On 1 January 2017, amendments were made to this risk based regulatory approach to specify parameters such as who is to be monitored and how often monitoring is to occur. The revised legislation requires all coal mines in Queensland to submit their respirable dust records to the Chief Inspector at prescribed intervals. These changes included the development of a Recognised Standard that provides a process for sites to establish the minimum monitoring requirements.

In preparation for these regulatory amendments, the Mines Inspectorate has developed systems and processes capable of receiving, analysing and storing respirable dust data.

This paper provides an overview of the capability of the Respirable Dust Database. It describes the functionality of the database and details:

To demonstrate the reporting capabilities of the database, the first guarter 2017 dust data for selected underground

- how and when sites provide dust data
- supporting guidance and "how to guides" provided by Mines Inspectorate
- statistical analysis capability
- search and reporting functions
- links to standing dust committee and coal mining safety and health advisory committee

and surface similar exposure groups compliance and assess industry trer	ed. This will demonstrat	e how the regulator car	n monitor
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#### DNRM

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# Concurrent Paper 3.50 - 4.15pm

# Occupational Health Thresholds for Mine Sites: The Status of Respirable Crystalline Silica and Lead Hazard Regulation

Presenter: Mark Desira
Author: Mark Desira

Organisation: Department of Natural Resources and Mines, Mine Safety and Health,

**Mines Inspectorate** 

This paper reviews the status of respirable crystalline silica (RCS) and blood lead hazard regulation at mine sites. The paper explores the changing regulatory environment, both locally and internationally, pertaining to acceptable occupational health hazard thresholds.

The Department of Natural Resources and Mines (DNRM) is developing guidance for industry to assist with monitoring and health surveillance management of RCS. The guidelines have been used in the assessment of the current state of RCS monitoring and health surveillance in underground metalliferous mines and sandstone mines.

Following Safe Work Australia's (SWA) recent publication of a decision regulatory impact statement for managing risks associated with lead in the workplace, the Queensland Mining Safety and Health Advisory Committee held a workshop to discuss the impact on industry of the options proposed by SWA to ensure acceptable lead exposure levels.

An outcome of the workshop was unanimous support for adopting a lower blood lead exposure level in Queenslar The examples in the paper demonstrate changing occupational health expectations within the mining industry an society.			
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#### DNRM



# Concurrent Paper 4.20 - 4.45pm

#### **Intrinsically Safe Circuit Issue**

Presenter: Neville Atkinson Author: Neville Atkinson

Organisation: Department of Natural Resources and Mines, Mine Safety and Health,

**Mines Inspectorate** 

A significant fire occurred on a Feeder Breaker at an underground coal mine in Central Queensland in 2014. The resulting investigation of this fire identified that the energy source for the ignition was provided by a fully compliant intrinsically safe power supply.

Incident details were that a cable was connected to a pressure transducer, the outer covering of which was worn-through by a rotating shaft that had been left unguarded. A heating effect was produced from the exposed conductors, which were supplied from an intrinsically safe power supply. A build-up of material which included coal, oil and grease ignited and a large fire ensued.

Subsequent investigations proved that fire could result from the energy provided from certified intrinsically safe power circuits. The heat generated from a series resistive fault could be shown, under certain conditions, to ignite flammable materials.

issues with intrinsically safe equipment at mine sites.		
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# Concurrent Paper 4.50 - 5.15pm

# Managing Contractors in Mining – Understanding the Factors Underlying the Safety Statistics

**Presenter: Dominique Nelson** 

**Authors: Dominique Nelson and Nikky LaBranche** 

Organisation: Department of Natural Resources and Mines, Simtars Division

Despite continued advancements in safety management in mining in Australia, the industry continues to see fatalities and serious incidents occur.

A review of safety and health statistical data, held by the Department of Natural Resources and Mines, indicates a disproportionately high number of fatalities and high potential incidents in the coal mining industry involved contractors.

A number of recurrent root causes and contributing factors were identified that highlighted the need for improved contractor management strategies to be developed to minimise this risk. The most common underlying factors identified were inadequate supervision and failure to follow approved procedures.

This paper uses information from local and international sources to investigate the potential underlying reasons behind these root factors. Challenging the implied irrelevance of human factors in the majority of risk management processes, we look at human psychology not just as a separate source of risk but also in the ways it can, if not adequately understood, undermine established safety management systems.

The paper also discussed the impacts of poor communication, logistical constraints and competing pressures on the contract employee workforce.		
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Mission - To organise and present a mining industry health and safety conference of excellence, which provides industry with the opportunity to exchange information, network and foster proactive health and safety management techniques.

The Committee responsible for organising the Conference comprises representatives from the Queensland Resources Council, the Department of Natural Resources and Mines, Simtars, the Construction Forestry Mining and Energy Union and the Australian Workers' Union.

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Health, Safety and Training Manager - Operations, Peabody

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