

# Mining Technology technical community within the Institute of Materials, Minerals and Mining

## Conference 2021

### *Legacies of mineral extraction and sustainability opportunities*

#### Conference Brochure

9 November 2021	Pre-conference Field Trip
10 November 2021	Day 1 Registration Opening Address Keynote Presentation Session 1 – New life for old mine sites (1) Session 2 – New life for old mine sites (2) Session 3 – An international commentary Conference buffet and entertainment
11 November 2021	Day 2 Registration J F Tunnicliffe Medal presentation Session 4 – Mine water management Session 5 – New life for old mine sites (3) Session 6 – Impact of mining legacy on surface development Closing remarks

Britain has a long history of mining and mineral extraction. Its legacies are the environmental, social and engineering consequences of completed mining operations, ranging from subsidence and ground movement and unmapped voids to contamination, gas emissions and water flows. In 2000, the North of England Institute of Mining and Mechanical Engineers held a conference to highlight and identify some of these legacies and to discuss methods of restoration and regeneration. The purpose of Conference 2021 is to review events that have changed thinking, improved methods and equipment in the 20-year passage of time. Considering the lessons learned in this period will be used as an important addition to discuss creation of sustainable opportunities looking at mining from cradle to grave.



**Organisations donating to the conference**

North of England Institute of Mining and Mechanical Engineers



Midland Institute of Mining Engineers



The Mining Institute of Scotland



Durham Energy Institute



**Others donating to the conference**

Sir John and Lady Mae Hall



## Speaker/Lead Speaker

### Day 1

10:00 – 10:10	Welcome	Christine Blackmore, Chair, Mining Technology Board
10:10 – 10:30	Opening Address	Darry Quayle, Department of International Trade
10:30 – 11:00	Keynote Presentation	Andrew Clark, North East Local Enterprise Partnership
11:30 – 13:00	Session 1: New life for old mine sites (1) <i>Making the most of abandoned mines</i> <i>The use of void space created by mining activity for beneficial purposes</i> <i>Circular Economy: Bates Clean Energy Terminal</i>	Stephen Henley, Ecton Mine Educational Trust Steve Reece, Chartered Engineer Martin Lawlor, Port of Blyth
14:00 – 15:30	Session 2: New life for old mine sites (2) <i>Energy storage for mining legacies: Facilitating the green revolution</i> <i>Carbon Capture, Use and Storage: UK potential</i> <i>Integrating mine planning leading to sustainable post-mining transition</i>	Chris Yendell, Gravitrinity Jon Gluyas, Durham Energy Institute Robrecht Schmitz, Sibelo Centre of Excellence
16:00 – 17:30	Session 3: An international commentary <i>Managing legal risks in mining projects: Lessons learned from the International Arbitration of Disputed Mining Projects</i> <i>Social Aspects of mine closures</i> <i>Sustainable nickel for a low carbon future</i>	Lorraine de Germigny, LALIVE (London) LLP Alexandra Mitchell, Wardell-Armstrong Anne Oxley, Brazilian Nickel
19:00	Buffet Supper & Entertainment (Ashington Colliery Brass Band)	Compare: Norman Jackson

### Day 2

09:00 – 09:10	Welcome	Christine Blackmore, Chair, Mining Technology Board
09:10 – 09:30	J F Tunnicliffe Medal Presentation	John Tunnicliffe, Past President, Institution of Mining Engineers
09:30 – 11:00	Session 4: Mine water management <i>Coal mine water management: Improving approaches through evidence and experience</i> <i>Research and innovation opportunities for mine water and heat storage at the UK Geoenergy Observatory in Glasgow</i> <i>Mine Water: A potentially important heat source</i>	Alice Mellor, The Coal Authority Alison Monaghan, British Geological Survey Charlotte Adams, The Coal Authority
11:30 – 13:00	Session 5: New life for old mine sites (3) <i>Glenmuckloch Energy Project</i> <i>The changing societal and environmental expectations: Implications and impacts for the mining industry</i> <i>Breathing new life into abandoned mines: The Robominers Project</i>	Alan Wilson, Buccleuch Estates Paul Bradley, Health and Safety Executive Stephen Henley, Ecton Mine Educational Trust
13:45 – 15:15	Session 6: Impact of mining legacy on surface development <i>The Coal Authority's role in facilitating redevelopment of sites impacted by coal mining and the promotion of a safe, assured and sustainable future</i> <i>Identifying challenging ground hazards for remediation and land development: A Case Study of a site affected by over 300 closely spaced bell pits, NW Leicestershire</i> <i>The challenges of managing access to The Coal Authority underground mine and mineral property portfolio</i>	Leigh Sharpe, The Coal Authority Russell Hurcombe, GRM Development Solutions Stuart Walker, The Coal Authority
15:15 – 15:30	Closing Remarks	Christine Blackmore, Chair, Mining Technology Board

## Pre-Conference Field Trip Tuesday, 9 November 2021

### Bates Clean Energy Terminal

Infrastructure works including a substantially upgraded heavy lift quay and 5 hectares of development land remediation are to be combined with a range of low carbon initiatives and innovation, to meet the needs of the offshore and renewables sector at the modern 17-hectare terminal. These upgrades will support Government ambitions set out in the Clean Maritime Plan and 2050 net zero targets whilst also serving the operational needs of the offshore wind industry as it moves to adopt clean maritime technologies and dramatically reduce emissions associated with operation and maintenance.

Specific objectives include zero carbon mine water heating to buildings, port electrification including heavy crange, solar and other renewable power generation, shore-to-ship power, robotics, automation, alternative fuel innovations to support next generation vessels and much more. These exciting initiatives are to be delivered with support from a growing number of regional and national partners.

A coach will transport delegates from Neville Hall to the Bates Clean Energy Terminal at the Port of Blyth. A tour of the facilities will be undertaken and a buffet lunch provided. The coach will return delegates to Neville Hall at the end of the tour.

Places on this field trip are limited and will be filled on a first-come first served basis. Delegates are advised to book early to secure a place on the field trip.

10:00 – 10:15	Meet in Foyer at Neville Hall
10:15 – 10:45	Travel to Port of Blyth
10:45 – 13:00	Visit to facilities at Bates Clean Energy Terminal
13:00 – 13:45	Buffet Lunch
13:45 – 16:00	Visit to facilities at Bates Clean Energy Terminal
16:00 – 16:30	Travel to Neville Hall



Model of Terminal Features



# Mining Technology technical community within the Institute of Materials, Minerals and Mining

## Conference 2021

### Legacies of mineral extraction and sustainability opportunities

#### Day One Programme (10 November)

09:00 – 10:00	Registration & tea/coffee								
10:00 – 10:10	Welcome								
Christine Blackmore, Chair, Mining Technology Board									
10:10 – 10:30	Opening Address								
Darryn Quayle, Mining Specialist, Department of International Trade, UK Government									
10:30 – 11:00	Keynote Presentation: Mine Energy Task Force								
Andrew Clark, Energy Programme Lead, North East Local Enterprise Partnership									
11:00 – 11:30	Tea/Coffee Break								
11:30 – 13:00	Session 1: New life for old mine sites (1)								
Chair: Paul Bradley, Mining Technology Board									
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13:00 – 14:00	Buffet Lunch								
14:00 – 15:30	Session 2: New life for old mine sites (2)								
Chair: Alan Auld, Mining Technology Board									
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Chair: Liz Mayes, Chief Executive, The Common Room									
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19:00	Buffet Supper & Entertainment (Ashington Colliery Brass Band) Compare: Norman Jackson								



**Day Two Programme (11 November)**

08:30 – 09:00	Registration & tea/coffee								
09:00 – 09:10	Welcome								
Christine Blackmore, Chair, Mining Technology									
09:10 – 09:30	J F Tunncliffe Medal								
John Tunncliffe, Past President, IMinE									
09:30 – 11:00	Session 4: Mine water management								
Chair: Jon Gluyas, Executive Director, Durham Energy Institute									
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L Mine Water: A potentially important heat source	N Jackson & C Adams								
11:00 – 11:30	Tea/Coffee Break								
11:30 – 13:00	Session 5: New life for old mine sites (3)								
Chair: Charlotte Adams, Commercial Manager, The Coal Authority									
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13:00 – 13:45	Buffet Lunch								
13:45 – 15:15	Session 6: Impact of mining legacy on surface development								
Chair: Steve Martin, President, NEIMME									
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15:15 – 15:30	Session 7: Closing Remarks								
Christine Blackmore, Chair, Mining Technology Board									

