

Autumn 2023

Chairman's Chat



Welcome to our Autumn 2023 newsletter. As we on the editorial team were compiling this edition it progressively dawned on me that we have encompassed a particular theme on this occasion; that being one of people. Throughout these pages, in addition to our regular features, news and updates you will find examples of stories about people. Most are about personal achievements, such as Alan Auld and Joe Sopko combining their efforts to successfully resurrect the International Symposium on Ground Freezing (with the help of the IOM3 Events team) or the organising team's growth of the UK Mining Conference in Cornwall. However, there are also stories of tragedies in mining past (Markham, UK) and present (KWK Pniówek, Poland). Both of those narratives are legacies of courageous people developing mines for the benefit of many others elsewhere. They

also spell out the determination of their colleagues and communities to make sure those who were lost are afforded the respect they deserve. And we must not forget that 21 October was the anniversary of the Aberfan colliery spoil tip failure disaster in South Wales, another story about people, when so many schoolchildren (116) and adults (28) lost their lives and a community worked day and night to rescue whoever they could reach. It is a fitting reminder that we have the benefit of significant knowledge and experience about competence in industry and the HSE (see pages 8 and 12).

All of the above should also remind us that mining is a positively dynamic and purposeful, though hazardous activity, most of the time led and organised by highly effective and motivated people. None more so than David Seath, one of our dear colleagues on the MTG leadership team who recently passed away. I think you'll agree when you read our article about David. Similarly with Rod Stace, another MTG colleague (and newsletter editor) with an amazing career record in mining. The good news is that in Rod's case he has simply decided to step down from the MTG leadership team to make the most of his family and personal time. Both David and Rod were recognised in different ways at our recent team meeting in London and in the case of David, his funeral service in Fife. We will miss them both, without doubt.

Staying on the people theme, I would also like to welcome Darron Dixon-Hardy to the newsletter editorial team and thank him for agreeing to take up the mantle. He will be joining us for the next and subsequent editions.

Now it's your turn as people, our MTG members and readers. Thank you once again for registering your interest in the Mining Technology Group through your IOM3 account preferences. If you know of contacts who have yet to do so, then please encourage them to update their profiles. There is one more thing for you to consider. We now have vacancies on the MTG leadership team. We are looking for members at any stages in their careers, particularly early-mid career and those who can bring new ideas and, just as important, be prepared to get involved, do things and make things happen. You have all the inspiration you need from the people mentioned above. For more information, see page 11, look out for the spotlight article on the Mining Technology Group in the November edition of Materials World and/or send us an email to our new team email address mtg@iom3.org.

Stop Press

New MTG Newsletter Editor

The MTG is very pleased to announce that Darron Dixon-Hardy will be joining the editorial team. He is Deputy Head of the School of Chemical and Process Engineering, University of Leeds and an existing member of the IOM3 MTG Leadership Team. More on this in the next edition, which is when Darron will start his new role.

New MTG Leadership Team members required

The MTG is looking for members who have affiliated with the MTG to "throw their hat in the ring" and join the Leadership Team. This gives you more opportunity to have a say in your sector and in the overall functioning of the IOM3. See page 11 for more details.

Cornish Metals Starts Up Mine Water Treatment

Cornish Metals recently held an event at South Crofty attended by staff, VIPs and guests to switch on the £7 million facility capable of treating 25,000 m³/day during dewatering the tin mine over an 18 month period. View more details [by using this link](#). More on Cornish Metals on page 10.

Bonus prize - visit this [YouTube link](#) for a fascinating 3D animation of recorded mine workings within the Camborne/Redruth/Gwennap Mining District. The power of mining technology!

Upcoming Events

ABMEC Conference 2023

This conference will be held at the Nottingham Belfry Hotel on 23 November 2023. More details can be found on the [ABMEC website](#).

Mines and Money London @ Resourcing Tomorrow 2023

[Conference](#) encompassing three themes, Resourcing Tomorrow, Reimagining Mining and Mines and Money, 28-30 November 2023 at The Business Design Centre, London, UK.

Editorial team

Colin Comberbach, Andy Birtles, Darron Dixon-Hardy

IOM3 contact - David Arthur (david.arthur@iom3.org)

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David Seath CEng FIMMM

MTG Leadership

14 November 1946 – 24 September 2023



Source photograph:

MIMinE

The MTG and IOM3 affiliated local societies would like to pass on our sincere condolences to the family and friends of David Seath, CEng FIMMM, who sadly passed away on Sunday 24 September.

David was a Chartered Engineer, a Fellow of IOM3 and a Fellow of the Chartered Management Institute. He was a longstanding friend and good counsel to IOM3, the MTG, and many of the affiliated local societies, including the Midland Institute of Mining Engineers, over several decades.

David had a long and distinguished career in the British coal mining industry, holding several senior managerial positions at colliery, regional and at national headquarters level. David worked for 25 years with the British Coal Corporation. Most of this time was spent in management positions at coal mines. He was Colliery Manager at Comrie Colliery, Polmaise Colliery and Monktonhall Colliery before being promoted to work in the Technical and Operations departments at the company headquarters and later retiring as Manager, Mines Rescue in 1995. He advised on health and safety legislative matters for the privatisation of British Coal.

After leaving British Coal he was a consultant and worked on projects in the UK, the EU and the USA. David was also a regular commentator on radio covering incidents at mines throughout the world (e.g. Chile, New Zealand, etc).

He was also heavily involved in the Mining Institute of Scotland (MIS) for 50 years having been President 1993-1994, and the Honorary Secretary of the Institute from 1999, as well as Company Secretary and Trustee. In addition, David was a Trustee of the National Mining Museum Scotland.

David served on Council and various committees of the former Institution of Mining Engineers (IMinE). He represented the UK on the Committee on Safety and Health in Mines set up by the International Labour Organisation in Geneva, Switzerland, was a member of European Coal and Steel Community (ECSC) Working Party on Rescue, Mine Fires and Explosions and various ECSC research committees.

David was an IOM3 Executive Board member and trustee, who used his position to advance the interests of local societies and the mining sector within the IOM3. He also served IOM3 on the Local Affairs Committee, Audit Committee, Advisory Council and as Scottish Regional Representative. As an instrumental contributor and active participant to the IOM3 Mining Technology Division (MTD), now known as the Mining Technology Group (MTG), his "wise words of wisdom" during meetings and individual discussions will be greatly missed.

In 2009 David received an Outstanding Service Award from IOM3 and in 2014 was awarded the Sir Andrew Bryan Medal.

Members of the Mining Technology Group, its Ground Engineering Subgroup and IOM3 Technical Community Support team stood and observed a minute's silence at the MTG Leadership Team meeting held in London on 28 September. This was to acknowledge and pay our respects to David, and Ian Bowbrick of IOM3 who had sadly passed away in July.

David's funeral service took place on 12 October 2023 at the Pitbauchlie Hotel, Dunfermline followed by burial at Culross Cemetery, attended by his family, friends and MIS colleagues. IOM3 was represented by

CEO Colin Church and the MTG was represented by leadership team member Norman Jackson, a long-time friend of David.

Some thoughts from David's MTG Leadership Team colleagues:

"It was quite a shock to learn of David's passing. I had worked in the same team as him at British Coal from the mid 1980's, both at Bretby and Eastwood Hall. In fact, our wives worked together in a job share in the last years of BCC. Subsequently, we both served on MTG (and its predecessors) as well as Local Affairs Board. David made an enormous contribution to IOM3 and the Mining Institute of Scotland. He had a lovely, wicked sense of humour and we will miss his wry observations around the meeting table. It is sad news indeed. He will be missed".

"Very sad news indeed. His contribution to the mining industry in general, and to the MTG and IOM3 will be greatly missed".

".....another true stalwart proponent of mining, gone from our midst. It's very sad news and he definitely will be missed, but fondly remembered".

"I don't know of many who worked in the industry who would not have known or heard of David. His contribution to the mining industry and to IOM3 has been outstanding. He will be sadly missed".

"Very sad news. David always supported the pieces I wrote, even when they caused controversy. It is unfortunate I only met him once, and that was on Zoom, instead I wish I could have had a few beers with him. I wish his family my condolences and best wishes".

"He put a lot of work into the Institute, particularly the Scottish Branch, for which I have much respect for him."

"David was a great person and advocate for our sector. David's participation in the UK Mining Education Forum from its formation demonstrated his belief in growing new talent, providing opportunities for students to experience mining first hand and promoting the sector as an exciting prospect. David was also a great advocate for Professionalism in Mining. David had an incredible eye for detail".

"David was a great supporter to the IOM3 and in particular the Scottish region and MTD. He always had some wise words of guidance for me, I shall miss him greatly".

"Whilst having known David from my former days in Scotland and attending MIS events, it was only since early 2022 that I had the pleasure of working with him, as fellow members of the MTG Leadership Team. There is no doubt that David had a true passion and vocation for mining throughout his long career, exemplified by his employment in industry and deep involvement in IOM3 and MIS professional matters to the very end. Just a day or two after attending his last IOM3 Advisory Council meeting in September, when his term of office on the Council and hence IOM3 Executive Board was coming to a close, David told me that we might not have seen the last of him in such a capacity. Such was his sheer dedication and belief in mining, its professions and its education".

The MTG Leadership team wishes to thank MIMinE and MIS for sharing content about David's life and career, extracts of which have been incorporated in this MTG newsletter article. It is understood that a full obituary will be published by IOM3 and MIS.

News and Views

MTG Leadership

Poland Rescue

The KWK Pniówek disaster occurred on 20 April 2022 in longwall N-6, 1,000 meters underground, where at about quarter past midnight a methane explosion occurred. There were 42 workers in the working area of the longwall, of which 39 workers managed to be evacuated. A second methane explosion occurred during the rescue action, resulting in seven workers remaining missing. After a subsequent methane explosion a day later the manager of the rescue operation decided to temporarily seal off the longwall. In all, nine miners lost their lives, seven were missing and a further 30 were injured.



Source photograph:

JSW



Source photograph:

Piotr Graboń

The rescue operation to recover the missing miners entailed developing a roadway from a place of safety to the location where five (the rescue team) of the seven missing miners are believed to be. The remaining two miners are believed to be on the longwall face.

On Monday 11 September 2023, rescue workers found the five rescue workers, and have brought them to the surface. The rescue action continued the search for the remaining two miners. During the operation, a tracking dog from the Beskidy Mountain Volunteer Emergency Service was used to locate the missing miners. On 13 September 2023, after advancing 168m along the longwall one of the missing miners was discovered and brought to surface.

After advancing some 185m, the rescue workers failed to find the last missing miner due to the increasingly difficult conditions. A second roadway was developed to intersect the longwall and the remaining missing miner was recovered on 21 October.

KWK (colliery) Pniówek was developed in the late 1960s and is located in the Upper Silesian Coal Basin in southern Poland.

Cornish Tin: The Great Wheal Vor Project

It has recently been announced in the [press](#) that Cornish Tin has been granted 6-year term exploration licenses by the Crown Estate to explore for gold and silver in two areas of Cornwall. According to the company, these new rights will complement their existing portfolio of exploration rights for tin and lithium, which to date have been their main focus for development.

See [Cornish Tin's presentation](#) for their recent (October 2023) release for investors, which includes some interesting details about the exploration results, project stages, key personnel and the overall objectives of Cornish Tin.

Rod Stace CEng PhD BSc FIMMM

Colin Comberbach



Source

Colin Comberbach

One of MTG's longest serving members and joint newsletter editor, Rod Stace, has decided to step down from the Leadership Team.

Rod worked as a professional mining engineer both within industry and academia since 1968, including a variety of roles for British Coal from 1968 to 1970 and 1974 to 1995. In the intervening years he researched for and obtained his PhD in mining engineering at the University of Newcastle, awarded in 1974.

Following the above he moved to the University of Nottingham and was Associate Professor in the Department of Civil Engineering until his retirement from full-time employment at the end of 2015. A well-published author, Rod's main research interests were in soft rock geotechnics and ground control.

In addition to these academic duties, he provided consultancy services in a range of engineering activities. This included expert witness work in legal cases and also the provision of advice on geotechnical aspects of mine planning for mining companies.

Rod also managed commercial rock testing activities at the University of Nottingham, as well as offering testing and advice on the use of non-metallic materials underground.

Rod has been a member of IOM3 in its various guises since 1967, when he joined as a student member. In addition to serving its technical communities via the MTG Leadership Team, Rod was also very active in its affiliated local societies. He is a former President, Treasurer and Council member of the IOM3 South Midlands Mining and Minerals Institute. At IOM3 level he was a member of the Local Affairs Board, Engineering Council Registration Standards Committee and Scholarship and Bursaries Panel and an examiner in Mining Health and Safety Law. All of this work resulted in Rod receiving an IOM3 Certificate of Outstanding Service in 2021 in recognition of his achievement and commitment through an Affiliated Local Society.

He has been instrumental in editing the MTG Newsletter and conferences publications, a role from which he will be sorely missed. As our regular readers will know Rod has constantly been involved with mining heritage issues, visiting many "defunct" operations in his passion for all things mining. Most recently he was one of a select group chosen to review the papers for the International Symposium on Ground Freezing (10-12 October 2023).

At our recent (and Rod's last) Leadership Team meeting at IOM3 HQ in London on 28 September, MTG Chair Colin Comberbach invited IOM3 Senior Vice-President Christine Blackmore to present Rod with a special IOM3 Outstanding Contribution Award certificate signed by CEO Colin Church (see photo).

The certificate recognises Rod's long and distinguished service to mining as a member of the IOM3 Mining Technology Group Leadership Team and its predecessor bodies since inception in 2002. Together with his local society roles, that is some record of IOM3 volunteering!

Rod leaves the MTG Leadership Team with our most sincere thanks for such dedication, advice and professional contribution and our very best wishes for all that he does in the future.

Competence in the UK mining sector

Neil Battison

Competency

The UK legislation specific to mining operations is "The Mines Regulation 2014" (MR14), these came into force in April 2015.

MR14 is principally designed to control the major hazards associated with underground mines in the UK. A major hazard is one that a single event could lead to a catastrophic outcome causing multiple fatalities. The controlling and mitigating barriers that prevent or minimise these events are all underpinned by the competence of the people involved in the management, supervision, and operation of the mine. The duty to provide this falls to the mine operators.

The Mines Regulation 2014 definition of competence:

"competent" in relation to a person means a person with sufficient training and experience, or knowledge and other qualities, to enable that person properly to undertake the duties assigned to that person, and "competence" is to be construed accordingly".



Source

CSM

All mine operators must comply with regulation 11 on competence which states:

The mine operator must ensure that –

(a) no person undertakes any work at the mine unless the person either is competent to do that work or does so under the instruction and supervision of some other person who is competent to give instruction in, and to supervise, the doing of that work

The mine operators themselves along with HM Inspectorate of Mines (HMIM) a part of the Health and Safety Executive (HSE) realised that to ensure sustained compliance to the MR14 Regulation 11 and to afford succession planning for long term business sustainability, then suitable training and competence assurance is required.

Qualifications

The Mining Qualifications Committee facilitated by HMIM is a collaborative approach open to all mine operators, training providers, colleges, universities and HSE, to ensure that fit for purpose training, qualifications and competence assurance is in place and accessible to all within the sector.

The Mining Qualifications Committee led the development of the Level 6 Degree Mine Manager Trailblazer Apprenticeship, run by the Camborne School of Mines, the first cohort being September 2023.

The apprenticeship reference ST1309 on the Institute for Apprenticeships and Technical Education website allows eligible employers a funding for each candidate to a maximum of £24,000 and is over for four years. The sector then asked at a Mining Qualifications Committee for a training package based on the mining National Occupational Standards (NOS), for the mining Level 4 supervisor and the Level 3 electrical and mechanical technician.

This was mainly driven by a lack of a useable package and the fact that numbers obtained from each operator showed many of these competent persons would be required in the coming years.

A sub-subcommittee was formed by volunteers comprising from MRS Training and Rescue, ICL Boulby, Compass Minerals Winsford, Anglo American Woodsmith Mine, British Gypsum, Energybuild Aberpergwm and HSE who to date have held nine meetings/ workshops.

To date the committee have reviewed and established -

- The Level 1 New Starters (Green Labour)
MG1 Operate safely in the mining environment, and
MG2 Conform to efficient work practices
- The Level 3 - Electrical technician
- The Level 3 - Mechanical technician
- The Level 4 - Mining Supervisor

The Mining Association of the UK (MAUK) have agreed to pay for and accredit through the Mineral Products Qualification Council (MPQC) these and further modules. MAUK will publish these on their website and will own all the intellectual property of the modules.

Mine operators will have to have assessors approved by MPQC to sign off candidates' portfolios and pay a small fee for the candidate accreditation certificate.

Useful Links

The following are links to the documents and other sites mentioned in the article.

The Mines Regulation 2014 (MR14) - https://miningquiz.com/pdf/Mining_Laws/HSE-mine-regulations.pdf

HM Inspectorate of Mines - <https://www.hse.gov.uk/mining/contacts.htm>

Health and Safety Executive - <https://www.hse.gov.uk/>

Mining Qualifications Committee - <https://www.hse.gov.uk/mining/coalqual/index.htm>

Camborne School of Mines - <https://csm.exeter.ac.uk/>

Mining Association of the UK - <https://mauk.org.uk/>

Mineral Products Qualification Council - <https://www.mp-qc.org/>

PERC News

Andy Birtles

Acknowledgements

PERC and IOM3 would like to take this opportunity to thank Stephen Henley and Neil Wells for their contribution to CRIRSCO, PERC and IOM3 over the many years of their involvement on the PERC Executive Committee, and also to congratulate them on their 'retirement'.

Cornish Metals – Triple Silver Certificate

Tim Blythe and Megan Ray

Cornish Metals Inc. (TSX-V:CUSN, AIM:CUSN), is a dual-listed company focused on advancing the South Crofty high-grade, underground tin project through to delivery of a feasibility study, as well as exploring its additional mineral rights, all located in Cornwall, SW England. The Company's mineral rights have potential for the discovery of tin, copper, lithium, tungsten, zinc and silver mineralisation.

Cornish Metals has recently been awarded the triple silver certificate from Redruth Charity Trust. Here are a few words specially composed for our Newsletter:



Source

BlytheRay

We take our commitment to supporting the host communities that surround our projects very seriously, and we value any opportunity to make a positive contribution in this respect. As such, we have facilitated and funded educational trips for primary school pupils to local mining museums and heritage sites. We have welcomed interns and placement students into our mining team and support higher education through our collaboration with Exeter University and the Camborne School of Mines.

We sponsor the Redruth Charity Trust, as their objectives in supporting social, physical, and educational groups to benefit the Redruth community, aligns with our own.

It is a testament to the work we do in our local communities, both in terms of educating and supporting local groups, that we have been awarded the Triple Silver Certificate by the Redruth Charity Trust.

We are very honoured to receive this award as it showcases our commitment to improving communities and that we understand the importance of our support to these charities. We will continue to make contributions to the host communities alongside the Redruth Charity Trust, as their efforts are integral to the betterment of Redruth.

Together with the Redruth Charity Trust, we have supported local charity events through sponsorships and one-off initiatives, as well as local sports groups, and local community groups.

By prioritising our relationship with host communities, we have always sought feedback and input in the way we have gone about developing our projects, which was best demonstrated when the Company held community consultations with locals and those who would be affected by our drilling programmes.

We're extremely proud to have accept this award, and we look forward to doing more work for the communities alongside the Redruth Charity Trust. Finally, we look forward to bringing the South Crofty Tin Project back into operation, for the benefit of both Cornwall as a whole, and Redruth.



Source

BlytheRay

Get involved

Colin Comberbach

The tragic loss of David Seath and the departure of Rod Stace, both dear friends and colleagues, mean that the MTG is looking for volunteers to join the Leadership Team.

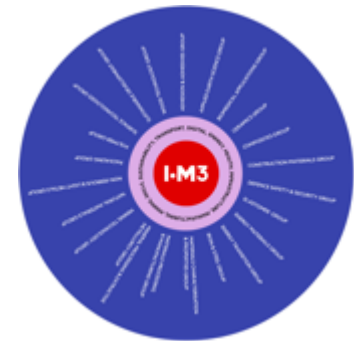
At the MTG we would appreciate if you could contribute to what we do, or wish to do, or suggest ways that we can improve the website, the communication to and from affiliated members, the events that are organised, and of course you are welcome to contribute an article to this Newsletter. An email to a client or customer requesting some form of information would usually be in the region of 250 words. This is about the number of words that would fill an article on this page, so come on and let us know of your involvement in the mining sector and share your views or contribute in some way to the MTG. Let us know at mtg@lom3.org.

Volunteer applications are considered by IOM3 on an ongoing basis and we are happy to arrange informal conversations for anyone who wants to find out more about the opportunities. We look forward to hearing from you and hopefully welcoming you to our enthusiastic body of volunteers! Use this link to access additional information: <https://www.iom3.org/membership/our-communities/get-involved/asv-hub-home.html>

Change to the IOM3 TCB

David Arthur, Colin Comberbach

The Technology Communities Board (TCB) 'wheel' has been reworked to be more striking. Fundamentally nothing has changed in terms of the Technical Communities and their interaction with the Strategic Advisors. The wheel was first used at the launch of the new Technical Communities structure in April 2022 drawing together the 22 Groups with the broader membership and how each group underpins the nine technical themes the IOM3 has at the core of everything we do (and the fact we have nine Strategic Advisors, one for each theme).



Source:

IOM3

GES Activities

Emily Wood

The Ground Engineering Subgroup (GES) has been holding quarterly meetings to discuss Ground Engineering matters in IOM3. IOM3 will email all members asking those who identify with the ground engineering industry and the GES to give feedback and express their interest in being kept up-to-date with ground engineering matters. This will allow us to promote upcoming ground engineering articles, podcasts and webinars. If you would like to contribute or get involved, please contact any of the following:

David Waring (Chair), david.waring@uk.bp.com

Iain McKechnie (Vice Chair), iain.mckechnie@bam.com

Emily Wood (Secretary), emily.wood@bam.com

Markham 50 Year Memorial

Vincent Fowler

On Wednesday 26 July, the National Technical Liaison Committee for Safe Manriding in Mines (NTLC SMIM) Committee met at the Markham Vale Environment Centre, a short distance from the No. 3 Shaft site where the overwind occurred on 30 July 1973. The importance of the work of the committee remains, as the hazards in shaft and winding are ever present.

On Sunday 30 July the programme for the commemoration centred around St John the Baptist Church, Staveley, its church hall, and the Walking Together memorial at the Markham site which commenced at eleven o' clock in the morning.

The weather was kind and many visitors took advantage of the coach provided between the church and the Walking Together memorial where figures honouring those lost in the 1973 disaster were identifiable with a commemorative ribbon.



Source:

Vincent Fowler



Source:

Vincent Fowler

clergy laid a wreath.

A steady stream of visitors attended exhibitions in the church hall where refreshments and a buffet were provided.

Relatives of those lost or severely injured attended, including a nurse who treated casualties. Their stories and comments left on memory cards were poignant.

At three o'clock in the afternoon, the service commenced, the Ireland Colliery Band provided beautiful music before and during the service which was attended by several hundred persons and was delivered by the Bishop of Oswestry along with Father Adrian Arnold. Hymns and music from the band, organist and choirs were moving. The service concluded with an upbeat, first live performance of the Markham March composed by Ken Wain.



Source:

Vincent Fowler

Two benches, funded by donations from sponsors were also installed along the route of the Walking Together memorial route to complement the existing walking figures.

In the morning, a small service was held at the Markham No3 Shaft Site, where Stuart Fowweather a member of the committee and



Source:

Vincent Fowler

The event was a success and a fitting commemoration for those lost or affected and to acknowledge the work of NTLC SMIM. It was only made possible with the support of the sponsors, community and ABMEC's organisational skills.

The UK Mining Conference in Cornwall

Jane Isaacs

Record turnout; record numbers; record weather

The UK Mining Conference in Cornwall proved to the world that mining is very much the forefront of the British economy. The confidence, enthusiasm and optimism were shared by 20 speakers to almost 300 delegates over two days in Falmouth, Cornwall. With extra-curricular activities such as site visits, Gala Dinners and exhibitor participation, there were four days of events to promote the mining industry. Speakers ranged from producers and exploration companies to educational and ESG (environment, social and governance) specialists. Many speakers had recent good-news stories, such as capital investments and increased updated resource estimates.

Politicians also attended the event, with MP Cherylyn Mackrory (MP for Truro and Falmouth and chair for the all-party parliamentary group for Critical Minerals) spoke about the new age of Cornish mining, and the opportunities it will bring. The highlight of the evening was the presentation of awards by St Austell and Newquay's MP Steve Double, who is Chair of the All-Party Parliamentary Group on Mining and Quarrying, which is supported by the Mineral Products Association.

Many of the UK Mining Education Forum ([UKMEF](#)), the group calling for more mining in education, members were present. UKMEF is a collaboration of industry, education and trade associations brought together to highlight the need for education at all levels. Three students, sponsored by the Critical Industry Suppliers ([CIS](#)) forum took the stage for five minutes to display their keenness and reasoning for being in the mineral extraction business.

The Princess Pavilion in Falmouth provided the most glorious setting, with a pleasing mix of Edwardian tradition and modern technology to host the vibrant mining community, many of whom had travelled from all over the British Isles plus international guests as well. Exhibitors enjoyed indoor and outdoor positions, with the weather reaching highs of 20 degrees Celsius.

Social events included the Greenbank Hotel, where Florence Nightingale once stayed, the second oldest pub in Falmouth - The Chain Locker and the Gala Dinner at the National Maritime Museum. Time was also made available for a round of Golf on the iconic Falmouth Golf Club course. Site visits were also organised around the conference programme. These visits included the following:



Conference speakers

ABMEC

- Cornish Lithium
- Cornish Tin
- Cornish Metals
- Cornwall Resources
- British Lithium
- Holman Wilfley
- WAI Processing Facilities & Pilot Plant
- Grinding Solutions
- Tungsten West

The organising committee includes the founder of the Conference; Jeremy Wrathall together with his staff from Cornish Lithium plc.

Speaking on behalf of the organiser, Jane Isaacs, Director General of [ABMEC](#), the Trade Association for the mining supply chain, said the event has grown significantly over the past few years, and relationships had grown too. She looks forward to seeing several delegates again at the ABMEC Conference in November.

International Ground Freezing Symposium 2023

Alan Auld

Following a 16-year hiatus, the International Symposium on Ground Freezing (ISGF) returned to the UK for the first time since 1988 on 10–12 October 2023 to present the latest research, innovations and concerns as well as challenges and opportunities in the fields of Artificial Ground Freezing, as well as the mechanics of Frozen Earth.

The 11th International Symposium on Ground Freezing (ISGF23) was successfully held at the Park Plaza London Riverbank Hotel. It was run by the IOM3 Events Team with Keller as the Headline Sponsor and promoted by the IOM3 Mining Technology Group (MTG) and the IOM3 Mining Technology Ground Engineering Subgroup (GES). Additional support was provided by another seven sponsors and seven exhibitors.



Co-Chairman of the Symposium Alan Auld



Delegates at the Symposium Alan Auld

140 delegates from 9 countries, Canada, China, France, Italy, Germany, Japan, Spain, UK and the USA, attended the Symposium, the largest contingent being from Japan. Presentations included a Keynote Address and 58 technical papers, 26 by Academics, 15 from Consultants and 17 by Contractors. The topics covered were all aspects of artificial and natural ground freezing involving testing of frozen soils, frozen soil behavior prediction, design of frozen ground temporary works systems to support structures and engineering case histories.

The delegates were welcomed to the Symposium by Christine Blackmore, Senior Vice President of IOM3. The Keynote Address was given by Joe Sopko, the Headline Sponsor Keller-North America's Director-Ground Freezing and Chairman of the Symposium International Organizing Committee.

The MTG was represented at the Symposium by its Chair, Colin Comberbach, who was also a guest chair of one of the main sessions on the first morning.

The Symposium Proceedings consisted of a 528 pages volume of the papers. Additionally, a Booklet promoted by the MTG and GES and funded by Zublin, was printed containing eight Technical Memoranda on ground freezing produced by the British Ground Freezing Society (BGFS) when it existed.

Christine Blackmore commented "*The ISGF was a really great and successful conference, it was truly international with delegates from around the world. It was an honour to be invited to open the conference. The whole event was excellently organised and executed thanks to Alan, Joseph and IOM3 events team. There was brilliant range of technical papers submitted and presented over three days for the delegates to appreciate. Well done to all speakers.*"

Interest has been shown from North America, Canada, Italy and Japan to hold the next ISGF within the next five years.



Ian Auld, Christine Blackmore, Joe Sopko Alan Auld

Upcoming Conferences

Colin Comberbach

ABMEC Conference 2023

This conference will be held at the Nottingham Belfry Hotel on 23 November 2023. ABMEC's Conference and Exhibition brings together leaders from the mining industry. More details can be found on the [ABMEC website](#).

Mines and Money @ Resourcing Tomorrow 2023

Mines and Money will take advantage of Europe's largest and most in-depth mining and energy event, Resourcing Tomorrow and bring its network of investors to London on 28 - 30 November. Resourcing Tomorrow will run three key themes, The Resourcing Tomorrow Theatre, Reimagining Mining Theatre and the Mines and Money Investment Theatre. Further details on this conference can be found at the [IOM3 website](#) and the [Resourcing Tomorrow website](#).

Don't miss out - use code **IOM310** for an exclusive 10% discount on delegate passes.

New for 2023, as described on the event website, will be a Critical Minerals Ministerial Roundtable on 27 November. It will be open to governments participating in Resourcing Tomorrow, with the aim of achieving better dialogue between mineral-rich countries and end users and establishing a roadmap for collaboration between key stakeholders. This roundtable will be followed by a private networking reception at the River Terrace, House of Commons, which the organisers anticipate will be attended by over 20 government delegations.

Geometallurgy 2023

[Geometallurgy](#) has won the hearts and minds of practitioners, as evidenced by the rise in geometallurgical positions in mining companies and consultancies. This conference, the fourth in the series which started in 2014, continues to provide a platform to further the latest advances in the geometallurgy discipline. Geometallurgy is an evolving field which was originally developed by the major mining companies. This conference will be held at the IOM3 headquarters in London on 4-5 December 2023.



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MTG 2025: Advances in Mining Technology & Mineral Supply

The conference will explore advances in technology, including artificial intelligence, at every step of the mining lifecycle and examine their interactions with strategic mineral supply to meet future demands for downstream materials.

We are excited to announce the upcoming Advances in Mining Technology & Mineral Supply Conference, set to take place in Spring 2025. As we look towards the future of the mining sector, this conference aims to explore innovative advancements and ensure a sustainable supply of minerals.

In order to create the most relevant and rewarding event experience, we are reaching out to you prior to issuing a formal call for papers as we would really appreciate some early feedback. This is your opportunity to help us shape the conference to deliver the best outcome for participants, including:

1. Content of the Conference

Share your insights and suggest topics that you believe should be covered during the event. Your expertise will ensure a comprehensive and engaging programme.

2. Possible Speakers and Topics

Recommend knowledgeable speakers and suggest specific topics you feel should be addressed. We strive to bring together a diverse and insightful line-up of industry experts.

3. AI Training Sessions

If you or your organisation are interested in providing AI training sessions related to mining technology, please let us know. We are eager to explore this educational opportunity.

4. Delegate Attendance

Kindly indicate your interest in attending the conference, allowing us to gauge the potential attendance and ensure a successful event.

5. Potential Sponsors or Exhibitors

If you know of any organizations interested in sponsoring or exhibiting at the conference, we would greatly appreciate your referral.

Feedback can be submitted using the form accessed from the [Conference Proposal webpage](#).

An interactive flyer is available on the [MTG webpage](#).



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Mining Education Matters

Colin Comberbach

UKMEF continues to meet on a regular basis to help shape the future provision of mining education in the UK. Along with representatives of many other interested parties, members of IOM3 and our Mining Technology Group attend the Forum. It is to be noted that IOM3 recently entered into a Memorandum of Understanding with Minerals Matter, one of its UKMEF partners.

The UKMEF has recently put together a list of upcoming mining events, which include the following for the autumn season:

DATE	ORGANISATION AND EVENT	VENUE	DETAILS
23 November 2023	ABMEC Annual Conference	Nottingham Belfry Hotel. NG8 6PY	Applications for assistance are assessed by Conference committee
28-30 November 2023	Resourcing Tomorrow	Business Design Centre, 52 Upper St, London N1 0QH	Contact: Andrew.Thake@minesandmoney.com.

Mann Redmayne Medal A - Reminder

Colin Comberbach

Background

The Mann Redmayne Medal A is awarded for the best paper published in IMM Transactions A: Mining Technology journal. Nominees should be members of IOM3 or AusIMM, with preference to research students or those in the early part of their industry career. Important issues to note:

- Eligible papers must be published two years before the award is presented.
- The winner will receive a medal, certificate and £450.00.
- The award is supported jointly with AusIMM.
- The award is judged by the IOM3 Mining Technology Leadership Team.

The Applied Earth Science and Mineral Processing and Extractive Metallurgy Groups are asked to judge the Mann Redmayne Medals B and C respectively.

Nominations

A reminder to encourage members to support and submit nominations for the Mann Redmayne Medal A. We are keen to promote higher levels of interest in this valuable Medal so please submit at the earliest opportunity. Nominations for the 2024 Awards will open in December 2023 (additional information is available on the [IOM3 website](#)).

Mining Technology Journal

Andy Birtles

Aims and scope

Mining Technology is devoted to all aspects of underground, opencast, and offshore mining operations, including:

- Mining finance, mining economics and evaluation, mineral resources management, planning control and mining law
- Mine design and development, operational techniques, mining machinery, environmental issues, mine management and organization, production and education and training
- Resource and reserve estimation; geostatistics; methods for rapid updating of resource and reserve models; incorporating geometallurgical variables into resource and reserve block models
- Data integration and, particularly, integration of directly measured data and sensed data

Descriptions of mining operations or properties, new or old, including open pit operations, are particularly welcome, specific attention being directed to: reasons for the selection of the equipment and the methods employed; the existing techniques employed; possible future developments; and capital and working costs.

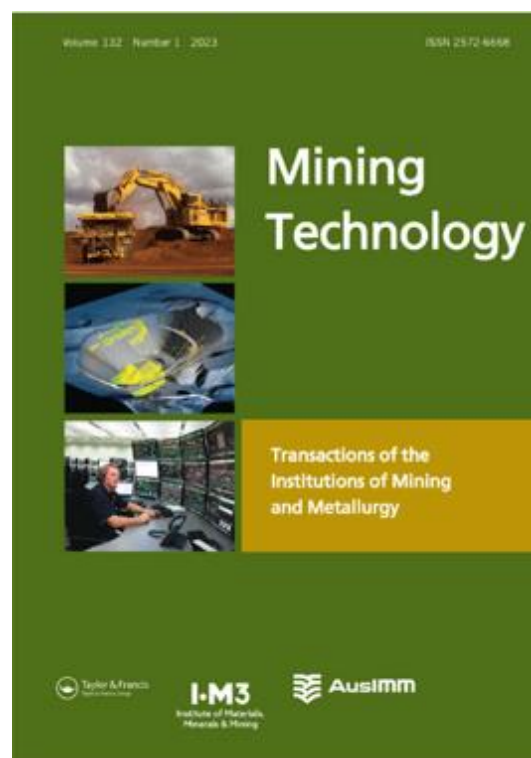
Letters and discussion of published results, furthering promulgation of practical experience, are encouraged.

Peer Review Policy

All submitted manuscripts will be subject to initial appraisal. If found suitable for further consideration, papers will subject to peer review by independent, anonymous referees.

Access

IOM3 members can access the journal free of charge – please log in to the IOM3 website and follow the [Member Publications](#) link to Journals.



Source

IOM3 website