

20th EIG Conference Programme: Sheet 1

UNIVERSITY OF DURHAM: 12th - 15th September 2018

Wednesday 12th September: CONFERENCE DAY 1 (Field Trips and Arrival)

- 12.00 to 17.00 Trade Stands & Posters set up** (Rooms ES230/231, Department of Earth Sciences, Arthur Holmes Building)
- 14.00 to 18.30 Registration & key collection** (in foyer of Collingwood College)
- 19.00 to 23.00 Icebreaker Reception & Buffet** (at Durham Castle)

Sponsored by



Thursday 13th September: CONFERENCE DAY 2 - Morning

- 07.30 to 08.30 Breakfast** (Collingwood & Grey Colleges)
- 07.45 to 09.00 Trade Stands & Posters set up** (Rooms ES230/231, Department of Earth Sciences, Arthur Holmes Building)
- 08.00 to 09.00 Registration & key collection** (ground floor, Calman Learning Centre)
- 08.00 to 08.45 Presenters briefing and presentation check** (Ken Wade lecture theatre, level 2)

Venue Arnold Wolfendale Lecture Theatre (ground floor, Calman Learning Centre)

9.00

Session 1: OPENING

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9.00 **Welcome and Introduction by the EIG 2018 Conference Chairman:**
Nick Horsley (Mineral Products Association)

9.05 **Opening Address:**

Presenter: Professor Prof Jon Gluyas, Dean for Knowledge Exchange and Executive Director of Durham Energy Institute, at Durham University

9.15 **Can the Abandoned Mines of County Durham Heat our Future? - An introduction to the Extractive Industry Geology of the Local Area.**

Presenter: Charlotte Adams, and Jon Gluyas, Durham University

9.40 **The EIG 2018 'Ansel Dunham' Lecture:**

A Question of Balance

Presenter: Alan Thompson (Director, Cuesta Consulting Limited & Secretary of the UK Minerals Forum)

10.35 to 11.15 Tea/coffee - In ES230/231, Arthur Holmes Building - **with opportunity to view trade stands and posters**

Venue Arnold Wolfendale Lecture Theatre (ground floor, Calman Learning Centre)

11.20 Session 2 : THE FUTURE OF MINERAL EXTRACTION AND GEOLOGY IN THE UK

Sponsored by



11.20 **A Conversation about Getting Fit – Opportunities for the Next Generation of Extractive Industry Professionals to Upskill for the Future**

Chair: Ian Selby (Director of Sustainable Geosciences, University of Plymouth, & Chairman of the UK Minerals Forum)

Panel Members: Robert Palmer (Tarmac), Liv Carroll (Accenture UK), Teresa Brown (BGS)

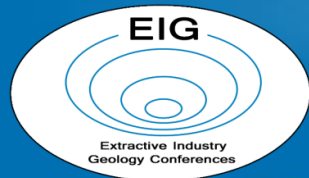
12.00 **Free at the Point of Use - The Next Generation of BGS Online Resources**

Presenter: Clive Mitchell (British Geological Survey)

12.25 to 13.25 Lunch - In ES230/231, Arthur Holmes Building - **with opportunity to view trade stands and posters.**

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20th EIG Conference Programme: Sheet 2

UNIVERSITY OF DURHAM: 12th - 15th September 2018

Thursday 13th September: CONFERENCE DAY 2 - Afternoon

12.25 to 13.25 Lunch - In ES230/231, Arthur Holmes Building - with opportunity to view trade stands and posters

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Venue Arnold Wolfendale Lecture Theatre (ground floor, Calman Learning Centre)

Venue Rosemary Cramp Lecture Theatre (second floor, Calman Learning Centre)

13.30 Session 3 : GROUNDWATER ISSUES Sponsored by

Chair: Lee Clarke (Envireau Water)

13.30 **Hydrogeological and Environmental Challenges presented by Surface Coal Mining in a Historic Scottish Coalfield**
Presenter: Simon Haunch (SEPA)

13.55 **Potential for Cotreatment of Mine Water and Waste Water in Waste Water Treatment Works**
Presenter: Christopher James Satterley (The Coal Authority)

14.20 **Determining impacts on groundwater at the proposed Woodsmith Potash Mine.**
(Note: this presentation is subject to client approval and might be withdrawn)
Presenter: Chris Woodhouse (Stantec)

14.45 **Determining the Geochemistry of Soil and Water Using Drone-based Hyperspectral Analysis**
Presenter: Jamie Robinson (SLR Consulting)

Session 4 : RESOURCE DEVELOPMENT Sponsored by

Chair: Peter Scott (University of Exeter)

13.30 **Sence or Senseless? – Opening a new quarry in the modern day; the next 40 years production at Bardon Hill**
Presenter: Sam Jameson (Aggregate Industries) and Adrian Charters (Quarry Design)

13.55 **Winsford mine: UK's largest salt mine - Fifty five years of rock engineering investigations**
Presenter: Evan Passaris (Atkins UK)

14.20 **A Workable Method for Forecasting Sand and Gravel Demand for Local Aggregate Assessments in England**
Presenter: Malcolm Ratcliff (Charis Consultancy Ltd.)

14.45 **Aggregate resources in a marine conservation zone: addressing environmental concerns with a geoscientific approach**
Presenter: Andrew Bellamy (Tarmac Marine)

15.10 to 15.40 Tea/coffee - In ES230/231, Arthur Holmes Building - with opportunity to view trade stands and posters

Sponsored by



15.45 Session 5 : TECHNIQUES & INNOVATION Sponsored by

Chair: Geoff Walton (Dustscan Ltd)

15.45 **The Use of Photogrammetry for Structural and Stability Assessment Mapping at Different Scales**
Presenter: David Jameson (GWP Consultants LLP)

16.10 **The Identification of Structural Domains in a Complex Hard rock quarry using remote data acquisition - a case study.**
Presenter: C. B. Sullivan, S. Johnson, C. Comberbach, S. Penn & A. Wilkinson

16.35 **An overview of geospatial methods for data acquisition and analysis: Useful insights exist beyond the hype.**
Presenter: David Oxlade (Geospatial Research Ltd., Durham University)

17.00 **Ground Instability in Areas of Historic Coal Mining: Application of Intermittent Small Baseline Subset (ISBAS) to the United Kingdom**
Presenter: David Gee (Nottingham Geospatial Institute, University of Nottingham)

Session 6 : RESOURCES & RESERVE EVALUATION Sponsored by

Chair: Teresa Brown (BGS)

15.45 **Cornish Lithium: Exploration for a new metal in an old mining region**
Presenter: Lucy Crane (Cornish Lithium)

16.10 **Is it Time for Industrial Rocks and Minerals Geologists to Exploit Block Modelling?**
Presenter: Samuel Lawrence (Tarmac Cement & Lime)

16.35 **Tenure and Permitting Aspects of Reserve and Resource Reporting**
Presenter: Gavin Mennie (Breedon Northern Limited)

17.00 **A Proposed Methodology to Evaluate a Dimension Stone Quarry Project and to Estimate Resources & Reserves**
Presenter: Marco Cosi (AlpiConsult, & Head of PERC Dimension Stone Group)

19.00 to 19.45 Pre-Dinner Drinks Reception (at Durham Castle)

Sponsored by



20.00 to 23.30 EIG Conference Dinner (at Durham Castle)

Sponsored by



and by



Followed by the new, improved, SHORTER ... but even more generous than usual ... **EIG Charity Raffle** ... this time in aid of the

Great North Air Ambulance Service

19.00 to 23.00 Cash Bar



Friday 14th September: CONFERENCE DAY 3

07.30 to 08.30 Breakfast (Collingwood & Grey Colleges)

08.00 to 09.00 Day Delegate Registration (Ground floor, Calman Learning Centre)

Venue Arnold Wolfendale Lecture Theatre (ground floor, Calman Learning Centre)

9.00 Session 7 : SHORT INTRODUCTIONS TO POSTER PAPERS

Chair: **Paul Anderson** (University of Birmingham)

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| 9.05 | What's in the dust? The use of microscopy to characterise dust around quarry operations | <i>Presenter:</i> Daniel Quinn (DustScan AQ) |
| 9.10 | Eco-hydrological Impact Assessment for an Extension to the Wood Lane Sand and Gravel Quarry, Shropshire, UK. | <i>Presenter:</i> Eleanor Haresign (JBA Consulting) |
| 9.15 | Iron distribution and properties of silica sand for informing adit mining extraction methods: Lochaline Silica Sand, Scotland. | <i>Presenter:</i> Toby Boocock (Edge Hill University) |
| 9.20 | New Crofton Co-op Colliery finally starts! | <i>Presenter:</i> Toby White (University of Leicester) |
| 9.25 | <i>Discussion</i> | |

9.30 Session 8 : THE ROLE OF THE ENVIRONMENT AGENCY IN UK MINERALS REGULATION

Chair: **Duncan Wardrop** (Wardrop Minerals Management Ltd)

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| 9.30 | The removal of abstraction licence exemptions – where are we now and what have we learned? | <i>Presenter:</i> Barnaby Harding (Stantec) |
| 9.55 | The minerals world through green tinted glasses: Environment Agency workshop & panel discussion | <i>Presenter & Chair:</i> Jim Davies (Environment Agency) |

10.45 to 11.25 Tea/coffee - In ES230/231, Arthur Holmes Building - with opportunity to view trade stands and posters

Venue Arnold Wolfendale Lecture Theatre (ground floor, Calman Learning Centre)

11.30 Session 9 : MINERAL RESTORATION

Chair: **Paul Jennings** (CEMEX UK)



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| 11.30 | Refining predictions of waterbody levels in quarry restorations using field data and numerical modelling | <i>Presenter:</i> Chris Leake (Hafren Water) |
| 11.55 | Restoring Quarries with Multiple Benefits – the role and value of cross-sectoral collaborations to deliver effective and sustainable legacies from quarrying. | <i>Presenter:</i> Helen Barnard (RSPB) |
| 12.20 | Waste Recovery Post-Methley: Realising Increasing Commercial Opportunities for Sustainable Quarry Restoration | <i>Presenter:</i> Chris Berryman (Stantec) |

Venue Rosemary Cramp Lecture Theatre (second floor, Calman Learning Centre)

Session 10 : RESOURCES & COMMUNITY

Chair: **Clive Mitchell** (BGS)



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| 11.30 | From quarry to cowshed; magnesium rich agricultural lime in the UK. | <i>Presenter:</i> Tom Bide (British Geological Survey) |
| 11.55 | Teaching resource geology: a model for work-based learning at undergraduate level | <i>Presenter:</i> Paul Anderson (University of Birmingham) |
| 12.20 | Quarry Tales: Oral Histories of Quarrying | <i>Presenter:</i> Bobbie Millar (University of Leeds) |

12.45 to 13.45 Lunch - In ES230/231, Arthur Holmes Building - with FINAL opportunity to view trade stands and posters.

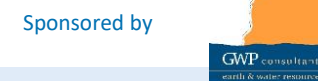


13.45 to 14.15 EIG Annual General Meeting - in the Arnold Wolfendale Lecture Theatre, **all invited - have your say in the future of EIG.**

Venue Arnold Wolfendale Lecture Theatre (ground floor, Calman Learning Centre)

14.15 Session 11 : GEOTECHNICS

Chair: **Cath Pickett, HSE.**



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| 14.15 | Quarrying Adjacent to Pre-20th Century Underground Mine Workings | <i>Presenter:</i> Tom Styles (Quarry Design) |
| 14.40 | Trench Collapse or Murder?? | <i>Presenter:</i> Alan Cobb (GWP Consultants LLP) |
| 15.05 | The use of pre-split and other smooth blasting techniques in quarry design with the purpose of enhancing safety and maximising the recovery of mineral reserves | <i>Presenter:</i> Paul Joel (Tarmac) |
| 15.30 | Are the Quarry Regulations 1999 Out of Date? | <i>Presenter:</i> Thomas Clifford (Atkins UK) |

16.00 to 16.10 Summing up: Nick Horsley, EIG 2018 Chairman

Saturday 15th September: CONFERENCE DAY 4 (Field Trips)

07.30 to 09.00 Breakfast (see your field trip itinerary for departure time)