

Extractive Industry Geology 1998

Programme for main Lecture Room (capacity 120)

Wednesday 1st July

8.45 - 9.30. **Registration**

9.30 - 9.45. **Welcome Address.**

C. Victor Phillips, President Institution of Mining and Metallurgy.

Theme: Quarry and open pit design. Chair: Clive Nicholas

9.45-10.15. Open pit optimisation of a kaolinite deposit.

Adam Wheeler, Mining consultant and John Howe, ECC International.

10.15-10.45. Application of numerical modelling in the investigation of quarry slope stability.

John Coggan, Doug Stead and John Eyre, Camborne School of Mines.

10.45 - 11.15. Coffee

11.15 - 11.45. Computerised quarry design for the geologist - an integrated approach?

Adrian Charters and Craig Arditto, Tarmac Quarry Products.

11.45 - 12.15. Some aspects of the geology and development at Edwin Richards Quarry.

Laurence Crump and John Sedman, ARC.

12.15 - 12.45. Geological modelling and design of Eshidiya Phosphate Mine, Jordan

Tim Bell and Martin Wassell, Surpac Software International (UK) Ltd.

12.45 - 2.00. Lunch

Theme: Case histories Chair: Richard Fox

2.00 - 2.25. Raised beaches and buried valleys - Sand and gravel investigations at Kyleakin Quarry, Isle of Skye.

Duncan Wardrop, Redland Aggregates.

2.25 - 2.50. Industrial minerals in the Scottish Highlands.

Clive Mitchell and David Harrison, British Geological Survey.

2.50 - 3.15. Ore-body modelling and mine design: case histories from Parys Mountain and Foss.

Graham Smith and Bill Hatton, British Geological Survey.

3.15 - 3.40. Brickmaking - Science or a black art?

Andrew Corley and Andrew Smith, Hanson Brick Ltd.

3.40 - 4.10. Tea

4.10 - 4.35. Developments in the testing of stone for use as a building material.

Elizabeth Laycock, Sheffield Hallam University and David Jefferson, Jefferson Consulting.

Theme: Minerals Planning Chair: Peter Scott

4.35 - 5.00. Sustainable development: Mineral resources versus environmental resources.

Andrew Bloodworth, B. Davies, Don Cameron, David Highley, British Geological Survey. John Cowley, Mineral and Resource Planning Associates.

5.00 - 5.25. Mineral demand and supply - is there a need for a long-term view in the decision process.

John Cowley, Mineral and Resource Planning Associates.

5.25 - 6.00. **Business Meeting - EIG / US Industrial Minerals Forum, Bath, 7-12th May, 2000. Chair: Colin Bristow**

6.30 - 7.30. **Reception, Bowhill Medieval Mansion**

(sponsored by Aggregate Industries plc)

Welcome by Clive Nicholas, Chief Geologist, Aggregate Industries plc and Keith Atkinson, Deputy Vice Chancellor, University of Exeter.

8.00. **Conference Dinner (at Crossmead). Bar open until midnight.**

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Programme for main lecture room (capacity 120), continued

Thursday 2nd July

Theme - Reserves and resources Chair: Colin Bristow

- 9.00 - 9.15. Introduction and overview on the recently agreed (CMMI) International Definitions for Mineral Reserves and Resources.
Gordon Riddler, MIRO.
- 9.15 - 9.45. Mineral Reserves - classification and definitions in the aggregates industry.
Clive Nicholas, Aggregate Industries UK.
- 9.45 - 10.00. Sand and gravel reserves assessment - yields versus calculated reserves.
Duncan Wardrop, Redland Aggregates.
- 10.00 - 10.30. Techniques for assigning resource categories to mineral deposits.
Paul Wheeler, Camborne School of Mines.
- 10.30 - 11.00. Coffee
- 11.00 - 11.30. Practical estimation of in-situ resources and mineable reserves.
Mike Armitage, J. Arthur and M. Pittuck, Steffan, Robertson and Kirsten.
- 11.30 - 12.00. Refining the evaluation of marine aggregate resources.
Ian Selby, Coastal Geosciences and Andrew Bellamy, United Marine Dredging Ltd.

Theme - Advances in drilling technology Chair: Bill Barrett

- 12.00 - 12.30. Modern Advances in Exploration Drilling
Brian Stringer, Atlas Copco Construction and Mining Ltd
- 12.30 - 1.00. Cost effective orientated coring.
Mark Swan, Millfields Geotechnical Services Ltd
- 1.00 - 2.00. Lunch.

Theme - Environmental, restoration and aftercare Chair: David Harrison

- 2.00 - 2.30. Environmental impact - Evolution to risk assessment.
Margaret Cliff, M.J. Carter Associates.
- 2.30 - 3.00. Geosynthetic clay liners.
Geoffrey Browning, Environmental Engineering and Waste management consultant.
- 3.00 - 3.30. Sizing of balancing ponds required to mitigate spring flows adjacent to proposed sand and gravel workings.
Geoff Bowen, Marcus Hodges Environment.
- 3.30 - 4.00. Tea.

Chair: David Roberts

- 4.00 - 4.30. Tracing fugitive mineral dusts for nuisance control and health risk.
John Merefield, Ian Stone, Jo Roberts, Jeff Jones and Jan Barron, Earth Resources Centre, University of Exeter.
- 4.30 - 5.00. Quarrying - planning for effective extraction, education and closure.
Judith Kinnaird, Geometallica.
- 5.00 - 5.30. The technology of placing waste materials into active mines
Uros Bajzelj, University of Ljubljana, Slovenia.

Friday 3rd July, Field Excursion

Depart 9.00am from Crossmead in own transport or in minibus, or meet 9.30am at Westleigh Quarry.

The programme will include visits to quarries east of Exeter, including Westleigh Quarry in Carboniferous Limestone (Bardon Aggregates) and Hillhead Quarry and Landfill in Triassic gravels (Aggregate Industries and Haul Waste)

Finish 4.00 pm at Hillhead Quarry. Return to Exeter by minibus.