

Contents

VOLUME 1

DVD Contents	xii
The Technical and Editorial Committee	xv
Foreword	xviii

The Global Resource Context

Estimating undiscovered resources and reserve growth: contrasting approaches	3
<i>R. R. Charpentier</i>	
The meaning of oil depletion and its consequences	11
<i>C. J. Campbell</i>	

Exploration Histories and Future Potential

Exploration histories and future potential: overview	23
<i>B. A. Vining, J. W. Munns, S. J. Stoker and D. Erratt</i>	
The discovery patterns of the resources of the rift and gas provinces of the North Sea compared with some analogous provinces worldwide	25
<i>A. Spencer, K. Chew and G. Leckie</i>	
UK North Sea exploration: a future?	35
<i>B. A. Vining, J. E. Mabillard and P. Van Rijssen</i>	
The remaining hydrocarbon potential of the UK Continental Shelf	41
<i>J. W. Munns, J. C. Gray, S. J. Stoker, I. J. Andrews and T. D. J. Cameron</i>	
Assessment of undiscovered resources on the Norwegian Continental Shelf	55
<i>O. J. Østvedt, P. Blystad and C. Magnus</i>	
Exploration history on the Norwegian Continental Shelf, 1990–2002: expectations and results	63
<i>P. Blystad and E. Søndena</i>	
The life cycle of the Netherlands' natural gas exploration: 40 years after Groningen, where are we now?	69
<i>J. Breunese, H. Mijndieff and J. Lutgert</i>	
Predicting gas production from future gas discoveries in the Netherlands: quantity, location, timing, quality	77
<i>J. Lutgert, H. Mijndieff and J. Breunese</i>	
The hydrocarbon potential of the Danish Continental Shelf	85
<i>M. Hemmet</i>	
Jotun Field reservoir geology and development strategy: pioneering play knowledge, multidisciplinary teams and partner co-operation – key to discovery and successful development	99
<i>D. Bergslien, G. Kyllingstad, A. Solberg, I. J. Ferguson and C. F. Pepper</i>	
Tullich Field	111
<i>J. M. Rodriguez, H. Scholey and K. P. Flanagan</i>	
Characterization of the Heimdal Sandstones within Alveim, Quads 24 and 25, Norwegian North Sea	123
<i>R. Fitzsimmons, D. Veiberg and T. Kråkenes</i>	
Sand injectites: an emerging global play in deep-water clastic environments	133
<i>A. Hurst, J. A. Cartwright, D. Duranti, M. Huuse and M. Nelson</i>	
Tilted oil–water contacts: modelling the effects of aquifer heterogeneity	145
<i>H. Dennis, P. Bergmo and T. Holt</i>	

- The North Sea Chalk: an underexplored and underdeveloped play 159
J. Megson and T. Tygesen
- Reserve growth in chalk fields of the North Sea 169
D. L. Gautier and T. R. Klett
- The Valdemar Field, Danish Central Graben: field compartmentalization and regional prospectivity of the Lower Cretaceous chalk play 177
F. Jakobsen, J. R. Ineson, L. Kristensen, H. P. Nytoft and L. Stemmerik
- The Lower Cretaceous plays of the Central and Northern North Sea: Atlantean drainage models and enhanced hydrocarbon potential 187
C. D. Oakman
- The discovery of Goldeneye: Kopervik prospect and play mapping in the South Halibut Basin of the Moray Firth 199
J. Wilson, G. Wall, H. J. Kloosterman, D. Coney, G. Cayley, J. Walker and C. Linskaill
- The technical challenges to exploration and development of the Kopervik fairway, Outer Moray Firth, UK 217
J. Argent, R. Blight, P. Cox, R. Hardy, A. Law, J. R. Smallwood and D. Walter
- Lower Cretaceous: the next target for oil exploration in the Barents Sea? 231
J. Seldal
- The Buzzard Field 241
G. Doré and J. Robbins
- Exploration history of the high-pressure, high-temperature plays: UK Central North Sea 253
D. Erratt, P. H. Nicholson, P. Winefield, R. J. Milton-Worssell, G. T. Cayley and G. Arter
- Jade Field: an innovative approach to high-pressure, high-temperature field development 269
A. D. Jones, H. A. Auld, T. J. Carpenter, E. Fetkovich, I. A. Palmer, E. N. Rigatos and M. W. Thompson
- Depositional and structural controls on Triassic reservoir performance in the Heron Cluster, ETAP, Central North Sea 285
T. McKie and P. Audretsch
- Production from Muschelkalk carbonates (Triassic, NE Netherlands): unique play or overlooked opportunity? 299
M. Pöppelreiter, R. Borkhataria, T. Aigner and K. Pipping
- The Caister–Murdoch System (CMS) III Carboniferous cluster development, UK Southern North Sea 317
M. M. Cooper, S. D. W. Easton, J. J. Lynch and I. M. Fozdar
- Fault trap analysis of the Permian Rotliegend gas play, Lauwerszee Trough, NE Netherlands 327
F. V. Corona
- Role of Cenozoic fault reactivation in controlling pre-rift plays, and the recognition of Zechstein Group evaporite-carbonate lateral facies transitions in the East Orkney and Dutch Bank basins, East Shetland Platform, UK North Sea 337
N. J. Richardson, M. R. Allen and J. R. Underhill
- Hydrogen exploration: a review of global hydrogen accumulations and implications for prospective areas in NW Europe 349
N. J. P. Smith, T. J. Shepherd, M. T. Styles and G. M. Williams

Better Recovery Through Better Reservoir Characterization

- Better recovery through better reservoir characterization: overview 361
J. G. Gluyas and S. W. Garrett
- Ardmore Field: rebirth of the first offshore oil field, UKCS 367
J. G. Gluyas, B. Mair, P. Schofield, P. Arkley and D. McRae
- A significant satellite: the Nevis South Field in Block 9/13 389
G. W. Farquharson and J. P. C. Gibson
- Extending the life of the Varg Field, a tail-end production opportunity 405
J. E. Battié, E. I. H. Siggerud and O. G. Tveiten

From spit system to tide-dominated delta: integrated reservoir model of the Upper Jurassic Sognefjord Formation on the Troll West Field	423
<i>T. Dreyer, M. Whitaker, J. Dexter, H. Flesche and E. Larsen</i>	
Turbidite reservoirs of the Sele Formation, Central North Sea: geological challenges for improving production	449
<i>M. Hempton, J. Marshall, S. Sadler, N. Hogg, R. Charles and C. Harvey</i>	
The Mittelplate oil field	461
<i>M. Doehler</i>	
The Magnus Field: extending field life through good reservoir management and enhanced oil recovery	469
<i>A. G. MacGregor, P. Trussell, S. Lauver, M. Bedrock, J. Bryce and T. Moulds</i>	
Designer wells to maximize recovery for Otter Field development, Northern North Sea	477
<i>S. D. Harker, C. Longis, J.-F. Roux, L. Livingstone, H. Thomas, K. Milne, G. Holm and S. Stromberg</i>	
A late life opportunity: using a multidisciplinary approach to unlock reserves in the Rannoch Formation, Ninian Field	495
<i>S. Matthews, A. D. Thurlow, F. J. Aitken, S. Gowland, P. D. Jones, G. J. Colville, C. I. Robinson and A. M. Taylor</i>	
Managing reservoir uncertainty after five years of field life: Britannia Field	511
<i>W. R. Sumner, S. Loutit, E. Tohill, D. Way, D. Criddle, A. Palfrey, W. G. Hakes, S. Archer, J. Colleran, A. Scott, K. Kaiser, A. Harding, A. Castellini, J. Clark and Qi Lianshuang</i>	
4D Ocean Bottom Seismic technology: an innovative tool for improved hydrocarbon recovery at Gullfaks	527
<i>M. Thompson and P. Digranes</i>	
Geologically based estimation of k_v/k_h ratios: an example from the Garn Formation, Tyrihans Field, Mid-Norway	537
<i>C. Elfenbein, Ø. Husby and P. Ringrose</i>	
Estimation of shape factors in fractured reservoirs	545
<i>F. If and P. Frykman</i>	
<i>In situ</i> stresses in the North Sea and their applications: petroleum geomechanics from exploration to development	551
<i>R. R. Hillis and E. J. Nelson</i>	

Gas Renaissance

The global gas renaissance: opportunities for innovative exploration plays and new technologies in existing fields and unconventional gas resources in the liberalized gas market place: overview	567
<i>S. D. Burley and D. Ireson</i>	
The world according to gas	571
<i>A. Odedra, S. D. Burley, A. Lewis, M. Hardman and P. Haynes</i>	
Challenges of developing Carboniferous gas fields in the UK Southern North Sea	587
<i>S. Corbin, S. Goringe and D. Torr</i>	
Exploration potential of the mature Southern North Sea basin margins: some unconventional plays based on alluvial and fluvial fan sedimentation models	595
<i>A. Moscariello</i>	
Key challenges to realizing full potential in an emerging giant gas province: Nile Delta/Mediterranean offshore, deep water, Egypt	607
<i>J. C. Dolson, P. J. Boucher, J. Siok and P. D. Heppard</i>	
On the dynamics of capillary gas trapping: implications for the charging and leakage of gas reservoirs	625
<i>Ø. Sylta</i>	
Biodegradation, gas destruction and methane generation in deep subsurface petroleum reservoirs: an overview	633
<i>S. R. Larter, I. M. Head, H. Huang, B. Bennett, M. Jones, A. C. Aplin, A. Murray, M. Erdmann, A. Wilhelms and R. di Primio</i>	
Surface geophysical monitoring of gas fields: some experiences	641
<i>O. Eiken, T. Tollefsen, F. Aanvik and T. Alsos</i>	
Judy Field: rejuvenation through a second phase of drilling	651
<i>T. Keller, R. Bayes, H. Auld and M. Lines</i>	
Shearwater (UK Block 22/30b): managing changing uncertainties through field life	663
<i>R. Gilham, C. Hercus, A. Evans and W. de Haas</i>	

- Armada Phase II and Seymour Phase I 675
A. Samuel, C. Taylor, S. Richards, I. Warburton and P. Highton
- Cross-flow to enhance gas recovery in the Dalton Field, East Irish Sea 687
T. R. King, M. Wannell and T. M. Alqassar
- Modelling fine-scale heterogeneity for optimal history matching from aeolian gas reservoirs, Neptune Field, UKCS 695
R. Garden, M. Mentiplay, R. Cook and I. Sylvester
- UK shale-gas resources 707
R. C. Selley
- Can UK coal resources contribute to a gas renaissance? 715
N. S. Jones, S. Holloway, D. P. Creedy and K. Garner
- Methane hydrates: problems in unlocking their potential 723
D. Long, P. D. Jackson, M. A. Lovell, C. A. Rochelle, T. J. G. Francis and P. J. Schultheiss

VOLUME 2

Atlantic Margins: New Insights, Regional Synthesis and Large-Scale Tectonics

- The Atlantic Margin from Norway to Ireland: geological review of a frontier continental margin province 733
P. M. Shannon, J. I. Faleide, J. R. Smallwood and I. M. Walker
- NE Atlantic break-up: a re-examination of the Iceland mantle plume model and the Atlantic–Arctic linkage 739
E. R. Lundin and A. G. Doré
- Imaging magmatic rocks on the Faroes Margin 755
A. W. Roberts, R. S. White, Z. C. Lunnion, P. A. F. Christie, R. Spitzer and iSIMM Team
- Timing and magnitude of depth-dependent lithosphere stretching on the southern Lofoten and northern Vøring continental margins offshore mid-Norway: implications for subsidence and hydrocarbon maturation at volcanic rifted margins 767
N. J. Kuszniir, R. Hunsdale, A. M. Roberts and iSIMM Team
- Late Mesozoic–Cenozoic structural and stratigraphic correlations between the conjugate mid-Norway and NE Greenland continental margins 785
F. Tsikalas, J. I. Faleide, O. Eldholm and J. Wilson
- Crustal structure of the Vøring Margin, NE Atlantic: a review of geological implications based on recent OBS data 803
R. Mjelde, T. Raum, A. Breivik, H. Shimamura, Y. Murai, T. Takanami and J. I. Faleide
- Cretaceous to Palaeogene 3D palaeobathymetry and sedimentation in the Vøring Basin, Norwegian Sea 815
T. Kjennerud and L. Vergara
- Seismic characteristics and distribution of volcanic intrusions and hydrothermal vent complexes in the Vøring and Møre basins 833
S. Planke, T. Rasmussen, S. S. Rey and R. Myklebust
- A Middle to Late Miocene compression phase along the Norwegian passive margin 845
H. Løseth and S. Henriksen
- Basement reactivation and inversion mechanisms in the Timor and Norwegian seas 861
M. Keep and M. Harrowfield
- Structure of the Faroe Bank Channel Basin, offshore Faroe Islands 873
J. Keser Neish and H. Ziska
- Geological development of the Northeast Greenland Shelf 887
N. E. Hamann, R. C. Whittaker and L. Stemmerik
- Sedimentology and geochemistry of Late Jurassic organic-rich shelfal mudstones from East Greenland: regional and stratigraphic variations in source-rock quality 903
D. P. Strogon, R. Burwood and A. G. Whitham

- Evidence for a major sediment input point into the Faroe–Shetland Basin from the Kangerlussuaq region of southern East Greenland 913
M. Larsen and A. G. Whitham
- At the edge of a new ocean: post-volcanic evolution of the Palaeogene Kap Dalton Group, East Greenland 923
M. Larsen, C. Heilmann-Clausen, S. Piasecki and L. Stemmerik
- Controls on the structure and evolution of the NE Atlantic margin revealed by regional potential field imaging and 3D modelling 933
G. S. Kimbell, J. D. Ritchie, H. Johnson and R. W. Gatliff
- Structure of the Hatton Basin and adjacent continental margin 947
L. K. Smith, R. S. White, N. J. Kuszniir and iSIMM Team
- Sedimentary evolution of the Lower Clair Group, Devonian, West of Shetland: climate and sediment supply controls on fluvial, aeolian and lacustrine deposition 957
G. J. Nichols
- Volcanogenic impact on phytogeography and sediment dispersal patterns in the NE Atlantic 969
D. W. Jolley, A. Morton and I. Prince
- Paleocene exploration in the Faroe–Shetland Channel: disappointments and discoveries 977
J. R. Smallwood and W. J. Kirk
- Aspects of the Cenozoic deformational history of the Northeast Faroe–Shetland Basin, Wyville–Thomson Ridge and Hatton Bank areas 993
H. Johnson, J. D. Ritchie, K. Hitchen, D. B. McInroy and G. S. Kimbell
- The structural framework of the Irish Atlantic Margin 1009
D. Naylor and P. M. Shannon
- The crustal structure and regional development of the Irish Atlantic margin region 1023
N. C. Morewood, G. D. Mackenzie, P. M. Shannon, B. M. O'Reilly, P. W. Readman and J. Makris
- The Corrib gas field, offshore west of Ireland 1035
P. N. Dancer, S. M. Kenyon-Roberts, J. W. Downey, J. M. Baillie, N. S. Meadows and K. Maguire
- The deep structure of the Porcupine Basin, offshore Ireland, from gravity and magnetic studies 1047
P. W. Readman, B. M. O'Reilly, P. M. Shannon and D. Naylor
- Neogene evolution of the Atlantic continental margin of NW Europe (Lofoten Islands to SW Ireland): anything but passive 1057
M. S. Stoker, D. Praeg, P. M. Shannon, B. O. Hjelstuen, J. S. Laberg, T. Nielsen, T. C. E. van Weering, H. P. Sejrup and D. Evans
- First results from shallow stratigraphic boreholes on the eastern flank of the Rockall Basin, offshore western Ireland 1077
P. Haughton, D. Praeg, P. M. Shannon, G. Harrington, K. Higgs, L. Amy, S. Tyrrell and T. Morrissey
- Reconstructing the Mesozoic–Cenozoic exhumation history of the Irish Sea basin system using apatite fission track analysis and vitrinite reflectance data 1095
S. P. Holford, J. P. Turner and P. F. Green

Deep-water Plays and Reservoirs

- Deep-water clastic reservoirs: a leading global play in terms of reserve replacement and technological challenges 1111
A. Hurst, A. J. Fraser, S. I. Fraser and F. Hadler-Jacobsen
- Submarine fan morphology and lithology distribution: a predictable function of sediment delivery, gross shelf-to-basin relief, slope gradient and basin topography 1121
F. Hadler-Jacobsen, E. P. Johannessen, N. Ashton, S. Henriksen, S. D. Johnson and J. B. Kristensen
- Cretaceous and Palaeogene turbidite systems in the North Sea and Norwegian Sea Basins: source, staging area and basin physiography controls on reservoir development 1147
O. J. Martinsen, T. Lien and C. Jackson
- The reservoir development of the Late Maastrichtian–Early Paleocene Ormen Lange gas field, Møre Basin, Mid-Norwegian Shelf 1165
J. Gjelberg, O. J. Martinsen, M. Charnock, N. Møller and P. Antonsen

- Paleocene deep-marine sandstone plays in the Siri Canyon, offshore Denmark–southern Norway 1185
L. Hamberg, G. Dam, C. Wilhelmson and T. G. Ottesen
- Angola Block 18: a deep-water exploration success story 1199
A. J. Fraser, D. Hilkewich, R. Syms, J. Penge, A. Raposo and G. Simon
- Deep-water plays of the Mauritanian continental margin 1217
A. Vear

Understanding Petroleum Systems

- Understanding petroleum systems: an overview 1235
G. Fries, P. H. Nadeau and I. C. Scotchman
- Modelling the Central North Sea pressure history 1237
R. E. Swarbrick, B. Seldon and A. J. Mallon
- Modelling the effects of transient overpressure on the petroleum systems of the UK North East Atlantic Margin and northern North Sea areas: implications for the deep water South Atlantic and Gulf of Mexico 1247
I. C. Scotchman and A. D. Carr
- Petroleum system analysis: impact of shale diagenesis on reservoir fluid pressure, hydrocarbon migration, and biodegradation risks 1267
P. H. Nadeau, P. A. Bjørkum and O. Walderhaug
- Dynamic fault seal analysis and flow pathway modelling in three-dimensional basin models 1275
S. M. Clarke, S. D. Burley and G. D. Williams
- How wrong can it be? Understanding uncertainty in petroleum systems modelling 1289
J. Wendebourg and K. Trabelsi
- Plumbing the depths of the Central Graben: towards an integrated pressure, fluid and charge model for the Central North Sea HPHT play 1301
P. Winefield, R. Gilham and R. Elsinger
- Quantitative hydrocarbon potential mapping and organofacies study in the Greater Balder Area, Norwegian North Sea 1317
H. Justwan and B. Dahl
- The history of hydrocarbon filling of Danish chalk fields 1331
O. V. Vejbæk, P. Frykman, N. Bech and C. M. Nielsen
- Late Cenozoic depositional history of the Danish North Sea Basin: implications for the petroleum systems in the Kraka, Halfdan, Siri and Nini fields 1347
E. S. Rasmussen, O. V. Vejbæk, T. Bidstrup, S. Piasecki and K. Dybkjær
- Understanding the diagenetic evolution of potential reservoirs in fold/thrust belts: an example from eastern Venezuela 1359
F. J. S. Schneider

Unlocking the Future with Innovative Geophysics

- Recent advances in geophysical technology: introduction and review 1369
P. A. F. Christie and E. Robein
- Using multicomponent seismic data to better characterize and manage reservoirs 1377
P. Kristiansen and J. Waggoner
- 4D seismic quantification of a growing CO₂ plume at Sleipner, North Sea 1385
R. A. Chadwick, R. Arts and O. Eiken
- Modelling seismic response from North Sea chalk reservoirs resulting from changes in burial depth and fluid saturation 1401
O. V. Vejbæk, R. Rasmussen, P. Japsen, A. Bruun, J. M. Pedersen, G. Marsden and I. L. Fabricius
- The drive for better bandwidth and resolution 1415
M. S. Egan

- Fluid and lithology identification using high-resolution 3D seismic data 1425
P. Connolly, S. Wilkins, T. Allen, G. Schurter and N. Rose-Innes
- Reducing structural uncertainties through anisotropic pre-stack depth imaging: examples from the Elgin/Franklin/Glenelg HP/HT fields area, Central North Sea 1435
J. Suiter, R. Romani, J. Arnaud, S. Hollingworth and K. Hawkins
- Pre-stack depth migration and velocity model building for imaging in the North Sea 1449
J. van der Burgh and J. Douma
- Advances in subsurface imaging using potential field technology: gravimetry sensors and applications 1453
D. J. Smit, E. Biegert and J. Mondt
- Preliminary results from investigations of seismic and petrophysical properties of Faroes basalts in the SeiFaBa project 1461
P. Japsen, C. Andersen, H. L. Andersen, M. S. Andersen, L. O. Boldreel, G. Mavko, N. G. Mohammed, J. M. Pedersen, U. K. Petersen, R. Rasmussen, F. Shaw, N. Springer, R. Waagstein, R. S. White and M. Worthington
- Borehole seismic: what does it bring to the understanding of the reservoir? 1471
J. Blanco

3D Visions

- A vision for 3D seismic technology and visualization 1483
R. J. Davies, R. Gras and X. Payre
- Three-dimensional visualization for well placement and geosteering: Njord Field, offshore mid-Norway 1487
C. Dart, J. M. Denichou, T. Bridger, R. Haugen, J. Sjøholm, Å. Halvorsen, V. Øye and M. Seim
- Applications of visualization in the Britannia Field, UK North Sea 1507
J. Collieran, S. Loutit, K. Kaiser, W. G. Hakes, W. R. Sumner, S. Archer and D. Criddle
- The MacCulloch Field: improving reservoir characterization through time-lapse analysis 1517
J. Scorer, N. Fuller, J. Malcolm and J. Bruner
- Using spectral decomposition as a hydrocarbon indicator tool in the Norwegian Sea 1533
R. H. Leadholm, T. J. F. Austin and P. F. Ostendorf
- 4D analogue models of extensional fault systems in asymmetric rifts: 3D visualizations and comparisons with natural examples 1543
K. R. McClay, T. Dooley, P. S. Whitehouse and S. Anadon-Ruiz
- Automated interpretation of geological fault surfaces imaged in 3D seismic data 1557
D. Gibson, J. Turner, M. Spann and T. Wright
- Application of 3D seismic visualization techniques for seismic stratigraphy, seismic geomorphology and depositional systems analysis: examples from fluvial to deep-marine depositional environments 1565
H. W. Posamentier
- Kilometre-scale sandstone intrusions in the Eocene of the Outer Moray Firth (UK North Sea): migration paths, reservoirs and potential drilling hazards 1577
M. Huuse, J. A. Cartwright, R. Gras and A. Hurst
- Automated mapping of carbonate build-ups and palaeokarst from the Norwegian Barents Sea using 3D seismic texture attributes 1595
A. Carrillat, D. Hunt, T. Randen, L. Sonneland and G. Elvebakk
- 3D visualization of a rock sample, Rotliegend sandstone, Southern Permian Basin: applications for core analysis and petrophysics 1613
A. Kayser, A. Kellner, H.-W. Holzapfel, G. van der Bilt, S. Warner and R. Gras
- Extrusive and intrusive magmatism in the North Rockall Trough 1621
K. Thomson
- Salt tectonics above complex basement extensional fault systems: results from analogue modelling 1631
T. Dooley, K. R. McClay, M. Hempton and D. J. Smit
- Index 1649

DVD Contents

These proceedings volumes also include an interactive DVD. The DVD is both Mac and PC compatible and includes three main elements:

- The PDF file of the entire proceedings volumes
- 28 QuickTime movies
- 35 Core Displays — comprising 211 plates and 22 posters

The book PDF is fully searchable with hierarchical bookmarks for easy navigation. Both Core Displays and Movies have textual links from the book PDF allowing the user to simultaneously view the relevant electronic material. Separate navigation windows also allow the Core Displays and Movies to be selected from a separate contents listing. Full text narratives are available for both Cores and Movies.

Movies

Movie 1: 3D visualization movie of the Armada and Seymour Fields

A. Samuel, C. Taylor, S. Richards, I. Warburton and P. Highton

Movie 2: Movie of the Silverpit meteorite impact crater

R. J. Davies, R. Gras and X. Payre

Movies 3–17: 3D visualizations of seismic interpretations and borehole images from the Njord Field

C. Dart, J. M. Denichou, T. Bridger, R. Haugen, J. Sjøholm, Å. Halvorsen, V. Øye and M. Seim

Movies 18–20: Applications of visualization in the Britannia Field

J. Collieran, S. Loutit, K. Kaiser, W. G. Hakes, W. R. Sumner, S. Archer and D. Criddle

Movie 21: 3D visualization of sandstone intrusions in the Lower Eocene of the Outer Moray Firth

M. Huuse, J. A. Cartwright, R. Gras and A. Hurst

Movie 22: 3D visualization of a rock sample and its application for core analysis

A. Kayser, A. Kellner, H.-W. Holzapfel, G. van der Bilt, S. Warner and R. Gras

Movies 23–28: 3D movies of igneous features from the North Rockall Trough

K. Thomson

Core Displays[†]

A1. Plates A–L: Faults and fractures in the Southern North Sea Rotliegendes*

D. Barr

A2. Plates A–P: Clay content and fault activity controlling localized seal potential of core-scale damage zones in the Witch Ground Graben, UKCS*

E. Edwards, G. Jones, G. Phillips, R. Knipe and M. Bamford

A3. Plates A–G: Admore Field: rebirth of the UK's first offshore oil field*

J. G. Gluyas, P. Arkley, P. Schofield and B. Mair

B1. Plates A–L: Sedimentary evolution of the Lower Clair Group, Devonian, west of Shetland: climate and sediment supply controls on fluvial, aeolian and lacustrine deposition*

G. Nichols and S. James

B2. Plates A–G: CMS III: Carboniferous Westphalian channel sand development in the Southern North Sea*

J. A. Helm, S. D. W. Easton, J. J. Lynch, M. M. Cooper, A. M. Conway, I. M. Fozdar and P. Pratsides

B3. Plates A–F: Modelling fine-scale sedimentological heterogeneity for optimal production from the Neptune Field, aeolian gas reservoir UKCS*

R. Garden, S. Henderson, M. Mentiplay, R. Cook and J. Smart

B4. Plates A–B: Production from Muschelkalk carbonates (Triassic, NE Netherlands): unique play or overlooked opportunity?*

M. Pöppelreiter, R. Borkhataria, T. Aigner and K. Pipping

- B5. Plates A–E: 110/2b-9: Dalton Field, East Irish Sea
T. King, M. Wannell and T. Alqassar
- B6. Plates A–B: Triassic reservoir performance in the Heron cluster, ETAP, Central North Sea*
T. McKie, P. Audretsch and L. Bater
- C1. Plates A–K: Judy Field: rejuvenation through a second phase of drilling*
T. Keller, H. Auld, M. Lines and R. Bayes
- C2. Plates A–C: Upper Brent reservoir variations, Otter Field, Northern North Sea*
S. D. Harker, C. Longis, J.-F. Roux, L. Livingston, H. Thomas, K. Milne, G. Holm, G. and S. Stromberg
- C3. Plates A–J: A significant satellite: the Nevis South Field, 9/13a
G. W. Farquharson and J. P. C. Gibson
- D1. Plates A–D: Shearwater Field: managing changing uncertainties through field life
R. Gilham, K. Hardacre, J. J. van der Velde, C. Nicolai, W. de Haas, C. Hercus and K. Sardar
- D2. Plates A–I: The Mittelplate oil field*
M. Doehler
- D3. Plates A–H: Reservoir heterogeneity within an Oxfordian braid-delta complex, Ross Sandstone, Captain Field*
C. J. Dennehy, J. F. Wham and M. Guy
- D4. Plates A–F: Core from the Buzzard Field: wells 20/6-3, 20/6-4 and 20/6-5
G. Doré and C. Forster
- D5. Plates A–H: Enhanced oil production of the Varg Field, through revising the geological understanding area PL038, Central North Sea
E. I. H. Siggerud, J. E. Battié and O. G. Tveiten
- D6. Plates A–B: The Magnus Field: extending field life through good reservoir management and enhanced oil recovery*
A. G. MacGregor, P. Trussell, S. Lauver, M. Bedrock, J. Bryce and T. Moulds
- E1. Plates A–C: From spit system to tide-dominated delta: integrated reservoir model of the Upper Jurassic Sognefjord Formation on the Troll West Field*
T. Dreyer, M. Whitaker, H. Flesche, J. Dexter and E. Larsen
- E2. Plates A–D: Cores from the Atlantic Field, Kopervik Fairway, Outer Moray Firth, UK*
R. Blight, B. Philips and A. Law
- E3. Plates A–C: The discovery of Goldeneye: Kopervik prospect and play mapping in the South Halibut Basin of the Moray Firth*
J. Wilson, G. Wall, D. Coney, G. Cayley, J. Walker, H. J. Kloosterman and C. Linskaill
- E4. Plates A–E: Managing reservoir uncertainty after five years of field life: Britannia Field
W. Sumner, S. Loutit, E. Tohill, A. Palfrey, D. Way, D. Criddle, B. Hakes, S. Archer, J. Colleran, A. Scott, K. Kaiser, A. Harding, A. Castellini, J. Clark and L. Qi
- E5. Plates A–D: The Seven Heads Field: revisiting an old discovery
A. M. C. Holland, G. Sykes, T. Tubby and I. Phillips
- F1. Plates A–C: Water flooding effects in chalk
J. Pedersen and K. Clausen
- F3. Plates A–B: Helland Hansen well 6505/10-1 NOCS: enigmatic deep-water sandstone facies, Upper Cretaceous Lysing Formation*
D. Boyd, J. Berry, E. Birkeland, R. Ravnås and D. Wall
- G1. Plates A–K: First results from shallow stratigraphic boreholes on the eastern flank of the Rockall Basin, offshore western Ireland
P. Haughton, D. Praeg, P. M. Shannon, S. Tyrell, T. Morrissey and L. Amy
- G2. Plates A–C: Sub-basalt imaging: new insight from investigations of petrophysical and seismic properties of Faroes basalts (SeiFaBa project)
P. Japsen, R. Waagstein, R. Rasmussen, N. Springer, C. Andersen, M. S. Andersen, J. Djurhuus, U. K. Petersen, G. Mavko, L. O. Boldreel, J. M. Pedersen, F. Shaw, M. Worthington and R. S. White
- G3. Plates A–H: Characterization of the Heimdal sandstones within the PL203 area, Norwegian North Sea
R. Fitzsimmons, D. Veiberg and T. Kråkenes

G4. Plates A–E: Jotun Field reservoir facies

D. Bergslien, G. Kyllingstad, A. Solberg, I. J. Ferguson and C. F. Pepper

G5. Plates A–F: MacCulloch Field: improving reservoir characterization through time lapse analysis*

N. Fuller, J. Scorer, J. Malcolm and J. Bruner

H1. Plates A–G: Turbidite reservoirs of the Sele Formation, Central North Sea

M. Hempton, J. Marshall, S. Sadler, D. Jones and S. Skinner

H2. Plates A–C: Tullich Field (9/23a-29U)*

J. M. Rodriguez, H. Scholey and K. P. Flanagan

H3. Plates A–C: Use of Karoo outcrop analogues in reservoir characterization and 3D modelling of the Glitne Field, Norwegian North Sea*

D. Hodgson, S. Flint, D. Hodgetts, N. Drinkwater, S.-Å. Østensen, E. Johannessen, S. Johnson, E. Vik and S. Luthi

H4. Plates A–C: The Alba Field

S. Groves, C. Bell and P. Nevill

H5. Plates A–H: Mid Eocene deep-marine clastic systems, Ainsa Basin, Spanish Pyrenees: Importance of mass transport complexes (MTCs) and synsedimentary tectonics*

K. T. Pickering

*Includes poster.

†Core Display F2 was withdrawn.