

Contents

Acknowledgements	vii
Dedication	ix
KILHAMS, B., KUKLA, P. A., MAZUR, S., MCKIE, T., MIJNLIEFF, H. F., VAN OIJK, K. & ROSENDAAL, E. Mesozoic resource potential in the Southern Permian Basin area: the geological key to exploiting remaining hydrocarbons whilst unlocking geothermal potential	1
Tectonic framework	
KLEY, J. Timing and spatial patterns of Cretaceous and Cenozoic inversion in the Southern Permian Basin	19
KRZYWIEC, P., STACHOWSKA, A. & STYPA, A. The only way is up – on Mesozoic uplifts and basin inversion events in SE Poland	33
SEIDEL, E., MESCHEDE, M. & OBST, K. The Wiek Fault System east of Rügen Island: origin, tectonic phases and its relationship to the Trans-European Suture Zone	59
DEUTSCHMANN, A., MESCHEDE, M. & OBST, K. Fault system evolution in the Baltic Sea area west of Rügen, NE Germany	83
VAN WINDEN, M., DE JAGER, J., JAARMA, B. & BOUROULLEC, R. New insights into salt tectonics in the northern Dutch offshore: a framework for hydrocarbon exploration	99
HERNANDEZ, K., MITCHELL, N. C. & HUISE, M. Deriving relationships between diapir spacing and salt-layer thickness in the Southern North Sea	119
Triassic resources	
GELUK, M., MCKIE, T. & KILHAMS, B. An introduction to the Triassic: current insights into the regional setting and energy resource potential of NW Europe	139
KORTEKAAS, M., BÖKER, U., VAN DER KOOLJ, C. & JAARMA, B. Lower Triassic reservoir development in the northern Dutch offshore	149
KILHAMS, B., STEVANOVIC, S. & NICOLAI, C. The ‘Buntsandstein’ gas play of the Horn Graben (German and Danish offshore): dry well analysis and remaining hydrocarbon potential	169
FRANZ, M., BARTH, G., ZIMMERMANN, J., BUDACH, I., NOWAK, K. & WOLFGRAMM, M. Geothermal resources of the North German Basin: exploration strategy, development examples and remaining opportunities in Mesozoic hydrothermal reservoirs	193
PEETERS, S., ASSCHERT, A. & VERWEIJ, H. Towards a better understanding of the highly overpressured Lower Triassic Bunter reservoir rocks in the Terschelling Basin	223
GOSWAMI, R., SEEBERGER, F. C. & BOSMAN, G. Enhanced gas recovery of an ageing field utilizing N ₂ displacement: De Wijk Field, The Netherlands	237
VAN KEMPEN, B. M. M., MIJNLIEFF, H. F. & VAN DER MOLEN, J. Data mining in the Dutch Oil and Gas Portal: a case study on the reservoir properties of the Volprieausen Sandstone interval	253

Jurassic resources

- BOUROLLEC, R., VERREUSSEL, R. M. C. H., GEEL, C. R., DE BRUIN, G., ZIIP, M. H. A. A., KÖRÖSI, D., MUNSTERMAN, D. K., JANSSEN, N. M. M. & KERSTHOLT-BOEGEHOLD, S. J. Tectonostratigraphy of a rift basin affected by salt tectonics: synrift Middle Jurassic–Lower Cretaceous Dutch Central Graben, Terschelling Basin and neighbouring platforms, Dutch offshore 269
- VERREUSSEL, R. M. C. H., BOUROLLEC, R., MUNSTERMAN, D. K., DYBKJÆR, K., GEEL, C. R., HOUBEN, A. J. P., JOHANNESSEN, P. N. & KERSTHOLT-BOEGEHOLD, S. J. Stepwise basin evolution of the Middle Jurassic–Early Cretaceous rift phase in the Central Graben area of Denmark, Germany and The Netherlands 305
- BARTH, G., PIEŃKOWSKI, G., ZIMMERMANN, J., FRANZ, M. & KUHLMANN, G. Palaeogeographical evolution of the Lower Jurassic: high-resolution biostratigraphy and sequence stratigraphy in the Central European Basin 341
- SACHSE, V. F. & LITKE, R. The impact of Quaternary glaciation on temperature and pore pressure in Jurassic troughs in the Southern Permian Basin, northern Germany 371
- STOCK, A. T. & LITKE, R. The Posidonia Shale of northern Germany: unconventional oil and gas potential from high-resolution 3D numerical basin modelling of the cross-junction between the eastern Lower Saxony Basin, Pompeckj Block and Gifhorn Trough 399

Cretaceous resources

- VONDRAK, A. G., DONSELAAR, M. E. & MUNSTERMAN, D. K. Reservoir architecture model of the Nieuwerkerk Formation (Early Cretaceous, West Netherlands Basin): diachronous development of sand-prone fluvial deposits 423
- VIS, G.-J., SMOOR, W. D., RUTTEN, K. W., DE JAGER, J. & MIJNLIEFF, H. F. Tectonic control on the Early Cretaceous Bentheim Sandstone sediments in the Schoonebeek oil field, The Netherlands 435
- PORTER, R. J., ROJAS, A. M. & SCHLÜTER, M. The impact of heterogeneity on waterflood developments in clastic inner shelf reservoirs: an example from the Holland Greensand Member, Rotterdam Field, The Netherlands 457
- ZWAAN, F. Lower Cretaceous reservoir development in the North Sea Central Graben, and potential analogue settings in the Southern Permian Basin and South Viking Graben 479
- WOLF, M., VIS, A. & ASSCHERT, A. Erosional valleys at a major Late Jurassic–Early Cretaceous unconformity offshore Germany and The Netherlands: potential reservoirs or deteriorated seals? 505
- STROZYK, F., REUNING, L., BACK, S. & KUKLA, P. Giant pockmark formation from Cretaceous hydrocarbon expulsion in the western Lower Saxony Basin, The Netherlands 519
- VAN LOCHEM, H. F17-Chalk: new insights in the tectonic history of the Dutch Central Graben 537
- Index 559