

I - OPEN LITERATURE PAPERS

Al-Kindi, M. H., & Richard, P. D. **2014**. The main structural styles of the hydrocarbon reservoirs in Oman. Geological Society, London, Special Publications, 392,1, 409-445. <https://doi.org/10.1144/SP392.20>

Aubert I., Lamarche, J., Richard, P. And Léonide, P. **In prep**. Imbricated structure and hydraulic path induced by strike slip reactivation of a normal fault. *J.S.G.*, xx.

Chemenda, A.I., Lamarche, J., Matonti, C., Bazalgette, L. and Richard, P., **2021**. Origin of strong nonlinear dependence of fracture (joint) spacing on bed thickness in layered rocks: mechanical analysis and modeling. *Journal of Geophysical Research: Solid Earth*, 126, 3, p.e2020JB020656. <https://doi.org/10.1029/2020JB020656>

Deweever, B., Richard, P., Al-Otaibi, B., Al-Sultan, N.P., de Zwart, B.R., van Essen, G., Schutjens, P., Glasbergen, G., Deinum, G., Ibrahim, H.E.D. and Al Abboud, N.E., **2021**. Unlocking flow pathways in complex carbonate reservoirs: Benefits of an integrated subsurface study from the Cretaceous Maaddud Formation, North Kuwait. *Marine and Petroleum Geology*, 126, 104892. <https://doi.org/10.1016/j.marpetgeo.2020.104892>

Filbrandt J.B., Al-Dhahab S., Al-Habsy A., Harris K., Keating J., Al-Mahruqi S., Ozkaya S.I., Richard P.D. and Robertson.T., **2006**. Kinematics interpretation and structural evolution of North Oman, Block 6, since the Late Cretaceous and implications for timing of hydrocarbon migration into Cretaceous reservoirs. *GeoArabia* v. 11, no. 1, p. 97-140. <https://doi.org/10.2113/geoarabia110197>

Filbrandt J.B., Franssen R.C. and Richard P.D., **2007**. Fault growth and coalescence: insights from numerical modelling and sandbox experiments. *GeoArabia*, Vol. 12, No. 1, p 17-32. <https://doi.org/10.2113/geoarabia120117>

Lamine, S., Richard, P., Steen, E.V., Pattnaik, C., Narhari, R., LeVarlet, X. and Dashti, Q., 2017, Integration of Pressure Transient Tests in Fracture Characterization in North Kuwait Carbonate Reservoirs. SPE 188835-MS. <https://doi.org/10.2118/188835-MS>

Levell, B., Richard, P., and Hoogendijk, F. **2002**. A possible Albian impact crater at Murshid, southern Oman. *GeoArabia*, 7, 4, 721-730. <https://doi.org/10.2113/geoarabia0704721>

Rawnsley K., Swaby P., Bettembourg S., Dhahab S., Hillgartner H., de Keijzer M., Richard P. D., Schoepfer P., Stephenson B. and Wei L., **2004**. New Software Tool Improves Fractured Reservoir Characterisation and Modelling Through Maximised Use of Constraints and Data Integration. SPE 88785-MS. . <https://doi.org/10.2118/88785-MS>

Rawnsley, K., Al-Hadhrami, F., Kok, A.L., Moosa, R., Swaby, P., Al Dhahab, S., Bettembourg, S., Engen, G., Richard, P.D., de Keijzer, M. and Penney, R., **2005**. Accelerated understanding and modeling of a complex fractured heavy oil reservoir, Oman, using a new 3D fracture modeling tool. IPTC-10095-MS. <https://doi.org/10.2523/IPTC-10095-MS>

Oskaya S.I. and Richard P.D. **2005**. Fractured reservoir characterisation using dynamic data in a carbonate field, Oman.SPE 93312-MS. <https://doi.org/10.2118/93312-PA>

Oskaya S.I., Richard P.D. and Mueller G., **2006**. Estimating Percentage of Fracture Fairways Detectible by Seismic Data- Case Studies. SPE 100449-MS. <https://doi.org/10.2118/100449-MS>

- Richard P.D., Ballard J.F., Colletta B. and Cobbold P.R., **1989**. Fault initiation and development above a basement strike-slip fault: analogue modelling and tomography. C.R.A.S. Paris, 309, II, p. 2111-2118.
- Richard P.D. and Cobbold P.R., **1989**. Structures en fleur positives et décrochements crustaux : modélisation analogique et interprétation mécanique. C.R.A.S. Paris, 308, II, p. 553-560.
- Richard P.D. and Cobbold P.R., **1990**. Mechanical reasons for partitioning of faults motions in continental convergent wrench zones. Annales Tectonicae, 4, 2, p.35-44.
- Richard P.D., Loyo, B. and Cobbold P.R., **1989**. Formation simultanée de failles et de plis au dessus d'un décrochement de socle : modélisation expérimentale. C.R.A.S. Paris, 309, II, p. 1061-1066.
- Richard, P., **1989**. Champs de failles au dessus d'un décrochement de socle: modélisation expérimentale (Doctoral dissertation, Université Rennes 1). <https://tel.archives-ouvertes.fr/tel-00675425/>
- Richard P.D., **1991**. Experiments on faulting in a two-layer sequence overlying a reactivated basement fault with oblique (normal-wrench or reverse wrench) slip. *J.S.G.*, 13, 459-470. [https://doi.org/10.1016/0191-8141\(91\)90018-E](https://doi.org/10.1016/0191-8141(91)90018-E)
- Richard P.D., Moquet B. and Cobbold P.R., **1991**. Experiments on simultaneous faulting and folding above a basement wrench fault. *Tectonophysics*, 188, p. 133-141. [https://doi.org/10.1016/0040-1951\(91\)90319-N](https://doi.org/10.1016/0040-1951(91)90319-N)
- Richard P.D. and Krantz R.W., **1991**. Experiments on fault reactivation in strike-slip mode. *Tectonophysics*, 188, p. 117-131. [https://doi.org/10.1016/0040-1951\(91\)90318-M](https://doi.org/10.1016/0040-1951(91)90318-M)
- Richard P.D., Naylor M.A. and Koopman A., **1995**. Experimental models of strike-slip tectonics. *Petroleum Geoscience*, 1, 71-80. <https://doi.org/10.1144/petgeo.1.1.71>
- Richard P.D., Nederlof P., Terken J. and Al-Ruwehy N., **1998**. Generation and retention of hydrocarbon in the Haushi play, North Oman. *GeoArabia*, 3, 4, p. 493-506. <https://doi.org/10.2113/geoarabia0304493>
- Richard P. and de Pieri L., **2010**. Borehole image three-dimensional visualization and interpretation in SVS Fracture Solutions. In: Poppelreiter, M. Garcia-Carballido, C. and M. Kraaijveld (eds) Dip meter and borehole image log technology, AAPG Memoir 92, 253 – 257. <https://doi.org/10.1306/13181287M923409>
- Richard P.D. and Bazalgette L., Kidambi V.K., Laiq K., Odreman A., Al Qadeeri B., Narhari R., Pattnaik C., and Al Ateeqi K., **2014**. Structural Evolution Model for the North Kuwait Carbonate Fields and its Implication for Fracture Characterisation and Modelling. IPTC 17620-MS. <https://doi.org/10.2523/IPTC-17620-MS>
- Richard P.D. and Bazalgette L., **2014**. North Oman Fault geometries in outcrops, analogues and subsurface. From: Rollinson, H. R., Searle, M. P., Abbasi, I. A., Al-Lazki, A. & Al-Kindi, M. H. (eds) 2014. *Tectonic Evolution of the Oman Mountains*. Geological Society, London, Special Publications, 392, 439–451. <https://doi.org/10.1144/SP392.21>
- Richard P.D., Pattnaik C., Al Ajmi N., Kidambi V., Narhari R., LeVarlet X., Guit F. and Dashti Q., **2015**. Detailed Discrete Fracture Network in Support of Drilling Activities in North Kuwait Carbonate Reservoirs, SPE 177766-MS. <https://doi.org/10.2118/177766-MS>
- Richard P.D., Pattnaik C., Al Ajmi N., Kidambi V., Narhari R., LeVarlet X., Guit F. and Dashti Q., **2015**. Discrete Fracture Network in Support of Drilling Activities in North Kuwait Carbonate Reservoirs, SPE 175375-MS. <https://doi.org/10.2118/175375-MS>
- Richard P.D., Lamine S., Pattnaik C., Al Ajmi N., Kidambi V., Narhari R., LeVarlet X., Swaby P. and Dashti Q., **2017**. Integrated Fracture Characterization and Modeling in North Kuwait Carbonate Reservoirs. SPE 188185-MS. <https://doi.org/10.2118/188185-MS>
- Richard P.D., Bazalgette B., Volery C. and Tokhi A., **in prep**. Scale discrepancy paradox between observation and modelling in fractured reservoir models in oil and gas industry. *Geological Magazine*.
- Richard P.D., Zampetti V., Volery C., Gesbert S., Kraysenbuehl T., Spaak M., Murzin S., Neves F. and Al Hosani S., **2017**. Abu Dhabi Structural Evolution and its Implications for Exploration. SPE-188973-MS. <https://doi.org/10.2118/188973-MS>

Warrlich G.M.D., Richard P.D., Johnson T.E., Wassing L.B.M., Gittins J.D., Al-Lamki A., Alexander D.M., and Al-Riyami M., **2009**. From Data Acquisition to Simulator: Fracture Modelling a Carbonate Heavy-Oil Reservoir (Lower Shuaiba, Sultanate of Oman). SPE 120428-MS. <https://doi.org/10.2118/120428-MS>

Zee vd W., Urai J.L. and Richard P.D., **2003**. Lateral clay injection into normal faults. GeoArabia, 8, 3, p. 499-520. <https://doi.org/10.2113/geoarabia0803501>

II - SELECTION OF INTERNAL PUBLICATION TITLES

Fractured reservoir

de Keijzer M. and Richard P.D., **2000**. Qarn Alam Fracture Study.

Al Jeelani O., Bourne S., Boya Ferrero M., Dombrowski A., Khouri A., Manoharan J., Neidhardt J., Richard P.D. and Stephenson B., **2002**. Al Kharrata East asset study: integrated characterization of an intensively fractured, highly heterogeneous chert-carbonate reservoir in Syria.

Richard P. D, al Dhahab S, Hillgartner H, de Keijzer M; Bettembourg S., **2003**. Qarn Alam Steam Fracture Service Project: Qarn Alam sequence stratigraphy and fracture analysis.

Richard P.D., **1997**. Natih -E Greater Marmul area Fracture/Fault prediction.

Richard P.D., **2004**. Burhaan NW fracture modelling. Fracture characterization and fracture modelling.

Richard P.D., Al Dhahab S and Bettembourg S. **2004**. Saih Rawl fracture modelling. Fracture characterization and fracture modelling.

Warrlich G. and Richard P.D., **2004**. Musallim fracture characterisation and conceptual model.

Bazalgette L., Lamine S., Volery C. and Richard P.D., **2011**. Abu Roash F light tight oil, fractured carbonate reservoir (Egypt). A first pass sedimentological and fracture characterization and modelling study based on an integrated static and dynamic workflow

Richard P.D and Bazalgette L., **2011**. Fracture modelling strategy at Exploration scale.

Richard P.D. and Bazalgette L. **2012**. North Kuwait Jurassic Gas Field Fracture Modelling. Workflow Definition and First Pass Model Elaboration. Internal KOC report.

Richard P.D., **2014**. North Kuwait Jurassic Gas Field Fracture modelling.

Richard P.D., **2015**. NJL and MFS Fracture Modelling for Well Planning. Internal KOC report.

Richard P.D., **2015**. NJL and MFS Fracture Modelling for Forecasts Generation. Internal KOC report.

Richard P.D., **2016**. Fracture Characterization and Modelling (FDS31). Internal KOC report.

Richard P.D., **2017**. Abu Dhabi Petroleum Systems to Portfolio discrete fracture network modelling.

Richard P.D., **2017**. Full Field Najmah DFN Modelling. Internal KOC report.

Richard P.D. and Lamine S., **2017**. Full field Marrat DFN modelling and PTA calibration. Internal KOC report.

Hasler C.A., Campbell K., Richard P.D., and Bora K, **2018**. Static model update activities for MM and non-MM. Internal KOC report.

Richard P.D., **2020**. MM and non-MM Discrete Fracture Network (DFN) Model update. Internal KOC report.

Structural/Kinematic interpretation

Richard P.D., **1995**. Structural/kinematic model for Gannet B/C, Central North Sea, offshore UK. Seismic interpretation and sandbox modelling.

Richard P.D., **1996**. Structural evolution and fault characterisation of the Gannet B/C area, North Sea.

Richard P.D., **1997**. Al Noor-Al Shomou fault population analysis and structural modelling.

Richard P.D., **1997**. North Oman salt diapirs. Fault interpretation and kinematic model.

Richard P.D., **2007**. Yibal Structural Evolution.

Richard P.D., **2011**. North Kuwait Jurassic gas field structural evolution.

Richard P.D., **2017**. Abu Dhabi Petroleum Systems to Portfolio Study Structural domain definition.

Richard P.D., **2018**. Santos basin pre-salt structural archetype definition.

Richard P.D., **2019**. Birbigao area kinematic interpretation (off-shore Brazil).

Richard P.D., **2020**. Rubiks structural geology note for file (North Oman structural domain definition).

New technologies

Richard P.D., **1993**. Videolaser: a new tool for analysis of sandbox models.

Richard P.D., **1997**. X-fault - A quick tool to analyze across fault juxtaposition.

Richard P.D., **1998**. XTM: Exploration Theme Management. A user manual.

Richard P.D. and Kirker J.C., **1996**. Sandbox modelling techniques. How to run experiments from A to Z.

Richard P.D. and Veltman R., **1997**. X-fault/SandSand user manual.

Richard P.D. and Verschuren M.A.J., **1994**. 3D visualization of a continental rift. Application of Videolaser and ReconModel to a sandbox model.

Richard P.D. et al., **2012**. SVS_Fracture_Solutions user manual update.

Richard P.D. **2020**. SVS Fault and fracture Solutions interactive teaching videos.

Compressional tectonics

Richard P.D. and Gunst A.M., **1995**. Decollement tectonics and fold propagation against a basement step: an experimental study.

Delta tectonics

Richard P.D., **1994**. Compressional toe structures in deltas.

Richard P.D. and Robert V., **1994**. Compressional toe structures in deltas: an experimental study.

Richard P.D. and Robert V., **1994**. Modification of compressional toe structures in deltas. Progradation over oceanic highs and compressive plate margins.

Exploration/Prospect evaluation

Richard P.D., **1997**. North Oman salt diapirs. Fault interpretation and kinematics model.

Richard P.D., **1998**. Murshid-C well proposal. Frontier exploration.

Richard P.D., **1998**. Murshid-C well resume.

Richard P.D. and Al-Kindi, A., **1998**. Maurid NE Reserve booking note for file.

Richard P.D., Nederlof P.J., Terken J.M. and Al-Ruwehy N., **1997**. Haushi hydrocarbon habitat study: Improving prospectivity in North Oman.

Richard P.D. **2004**. Shuaiba Structural/fracture domain definition. (part of Droste H., Richard P.D. al Dhahab S., Wagner P. and Ochs S., **2004**. Shuaiba Asset Study: North Oman Shuaiba Regional Synthesis.

Fault growth

Richard P.D., Filbrandt J.B. and Gunst A.M., **1995**. New insights into fault growth (1). Effect of segmentation and coalescence.

Filbrandt J.B., Richard P.D., Beukel vd P.J. and Gunst A.M., **1995**. New insights into fault growth (2). Fault linkage and relay ramps.

Richard P.D., Filbrandt J.B. and Gunst A.M., **1995**. New insights into fault growth (3). Effect of extensional strain obliquity.

Oil migration modelling and palinspastic reconstruction

Richard P.D. and Huysse P.J., **1992**. Evolution of the Nun River Field, Nigeria. Part II: Simple models for single carrier-bed migration.

Richard P.D., **1993**. Evolution of the Nun River Field, Nigeria. First multiple carrier-bed migration models.

Richard P.D. and Peters M.P.A.M., **1994**. Palaeomapping and multiple carrier bed migration modelling in the Nun River field, Nigeria.

Salt tectonics

Richard P.D., **1994**. From salt diapir to salt nappe.

Richard P.D. and Robert V., **1995**. Fault patterns developed above salt diapirs. Effect of diapir shape and regional stress field.

Richard P.D., Calver E. and Loosveld R.J., **1995**. Deformation of sedimentary stringer in a salt diapir. An experimental approach.

Richard, P.D., **1997** North Oman salt diapirs: Fault interpretation and kinematics model. PDO Exploration.

Top and fault seals

Richard P.D. and Urai J.L., **1992**. Top seal heterogeneity in the W-NL Basin.

Richard P.D. and Urai J.L., **1992**. Seals in the West Netherlands Basin. A case study.

Richard P.D., Urai J.L. and Krikke A., 1993. Clay smear: an experimental approach.

Richard P.D. and Krikke A., **1994**. Modes of clay smear emplacement. An experimental study.

Field development.

Ruiter R., Strauss J., Elnoamany S., Cherukupalli P., Zakwani S., Richard P.D., Mufti, A., Parekh B., Moya B., and Mujaini M., **2005**. Malaan (Upper Shuaiba) Field Development Plan.