

Curriculum Vitae

Boyun Guo

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EDUCATIONAL BACKGROUND

- Ph.D. Petroleum Engineering, New Mexico Institute of Mining and Technology, Socorro, NM, 1992
M.S. Petroleum Engineering, Montana College of Mineral Science and Technology, Butte, MT, 1989
B.S. Engineering, Daqing Petroleum Institute, Anda, Heilongjiang, P. R. China, 1982

EMPLOYMENT HISTORY

- 2000-21 University of Louisiana at Lafayette, Lafayette, LA –Professor and Graduate Coordinator in Petroleum Engineering. Director of Center for Optimization of Petroleum Systems (COPS). Courses Taught: Well Design and Well Control, Drilling Engineering, Petroleum Production Engineering, Natural Gas Engineering, Petroleum Engineering Computer Applications, Horizontal Well Engineering, Formation Damage Control, Drilling Optimization, Advanced Petroleum Production Systems and Optimization, Advance Mass Transfer in Porous Media, Special Design Problems, and Undergraduate Research. Research Interests: 1) Underbalanced Drilling, 2) Development of Unconventional Reservoirs, and 3) Hydrocarbon Production Optimization.
- 1998-00 Edinburgh Petroleum Services Americas, Inc., Houston, TX – Senior Petroleum Engineer and TechTEAM Leader. Major Responsibility: Providing technical services in the areas of production optimization, well test design and analyses, and flow assurance analyses. Software Development Involvements: WellFlo, FieldFlo, Dynalift, PanSystem, PanMesh, ReO.
- 1994-98 Petroleum Recovery Research Center (PRRC), New Mexico Institute of Mining and Technology, Socorro, NM - Senior Research Associate. Research Conducted: Oil production improvement from complex reservoirs (naturally fractured reservoir, low permeability reservoir, low pressure reservoir), Flow modeling, CO₂ flooding process, and mechanism of oil recovery in low interfacial tension systems.
- 1992-94 Petroleum Engineering Department, New Mexico Institute of Mining and Technology, Socorro, NM - Visiting Assistant Professor. Courses Taught: Well Design, Production Engineering, Production Engineering Design, Engineering Mechanics, Advanced Strength of Materials, Vibrations in an Elastic Continuum, Engineering Design Clinics. Research and Technology Development: Flow of lightened fluids (air, aerated mud, and foam), and drill bit dynamics.
- 1989-92 Petroleum Engineering Department, New Mexico Institute of Mining and Technology, Socorro, NM - Research Assistant. Research and Technology Development: Gas hydrates decomposition and its mathematical modeling, water/gas coning phenomena and control, and 3-dimensional well drilling.
- 1988-89 Petroleum Engineering Department, Montana College of Mineral Science and Technology, Butte, MT - Research Assistant. Research Conducted: Probability of well bore interference.
- 1982-88 The Second Drilling Company, Daqing Petroleum Administrative Bureau, Daqing, Heilongjiang, P.R. China - Petroleum Engineer. Designed and supervised drilling operations for over 100 high-pressure and high-temperature wells.

AWARDS RECEIVED

- The Distinguished Faculty Award, New Mexico Institute of Mining and Technology, USA, 1993.
- Outstanding Technical Editor Awards, Society of Petroleum Engineers (SPE), 2000 and 2009.
- Awards for the Exceptional Support to the Flight Projects Directorate of NASA's Marshall Space Flight Center, 2003 and 2004.
- The 2008 Teacher of the Year Award, UL Lafayette College of Engineering, 2008.
- Award for the Distinguished Contributions to the Petroleum Engineering in the Area of Production and Operations, SPE Central/Southeastern North America Region, 2009.
- Distinguished Achievement Award for Petroleum Engineering Faculty, SPE Eastern Region, 2012.
- Researcher of the Year Award, UL Lafayette College of Engineering, 2016.
- Distinguished Professor, UL Lafayette, 2017.
- Outstanding Doctoral Student Mentor Award for the 2018-2019, UL Lafayette, 2020.

PROFESSIONAL ACTIVITIES

- *Journal of Natural Gas Engineering* Editorial Board member.
- Associate Editor for *Journal of Natural Gas Science & Engineering*: Evaluation of technical papers based on reviewer's comments.
- Technical Editor for *SPE Drilling & Completion Journal*: Review technical papers.
- Technical Editor for *Journal of Petroleum Science and Engineering*: Review technical papers.
- Technical Editor for *Journal of Energy Resources Technology*: Review technical papers.
- Technical Editor for *Journal of Canadian Petroleum Technology*: Review technical papers.
- Member of IADC Publications Committee.

PATENTS

- US Patent No. 5473904: Method and Apparatus for Generating, Transporting and Dissociating Gas Hydrates.
- China Patent No. 201010245400: A New Design of Annular Flow Diverging Joint (FDJ) and Calculation Method for Gas Drilling.
- China Patent No. 201410605630: A technique for manufacturing drill bits for rotary jet pumps for reverse circulation drilling with the dual-wall drill pipe.
- China Patent No. 201410605684: A technique for manufacturing drill bits for tangential-feed rotary jet pumps for reverse circulation drilling with the dual-wall drill pipe.
- China Patent No. 201410605713: A technique for manufacturing jet-drill-bits for horizontal drilling.
- China Patent No. 201410605681: A technique for manufacturing jet-pump-bits for reverse circulation drilling with the dual-wall drill pipe.
- China Patent No. 201310654747: A technique for manufacturing high-efficiency safe mud-drill jet-bits for horizontal drilling.

- China Patent No. 201310654718: A technique for manufacturing high-efficiency safe gas-drill jet-bits for horizontal drilling.

PUBLICATIONS

Peer-Reviewed Journal Papers

1. Tamaralayefa Ayemidi Timiyan and Boyun Guo. A Mathematical Model for Estimating Fracture Permeability with Invasion Damage of Formation Sand, *SPE Prod & Oper* (online 05/24/2021). SPE-205509-PA. <https://doi.org/10.2118/205509-PA>.
2. Chunkai Fu, Boyun Guo, and Ali Mokhtari. Quantitative Analysis of the Sequential Initiation and Simultaneous Propagation of Multiple Fractures in Shale Gas/Oil Formations. *Journal of Petroleum Science and Engineering* 200 (2021) 108272.
3. Xiao Cai, Boyun Guo, Qingfeng Guo, and Hongwei Jiang. Mathematical Simulation of Lost Circulation in Fracture and Its Control. *Geofluids*, Volume 2021, <https://doi.org/10.1155/2021/6691385>.
4. Boyun Guo, Chunkai Fu and Ning Liu. A Priori Assessment of Long-Term Productivity of Frac-Packed Wells for Producing Natural Gas from Marine Gas Hydrate Reservoirs. *Energy Sci Eng.* 2021; 00:1–13. <https://doi.org/10.1002/ese3.866>.
5. Xu Yang, Boyun Guo, and Tamaralayefa Timiyan. A Mathematical Model for Predicting Long-Term Productivity of Channel-Fractured Shale Gas/Oil Wells, *SPE Production & Operations* (available online Dec. 21, 2020), SPE-204471-PA. <https://doi.org/10.2118/204471-PA>.
6. Yi Luo, Boyun Guo, Liehui Zhang, and Dong Xiao. Finite Element Analysis of Flow Field in Drill Bit Design for Gas-Lift Drilling, *Journal of Energy Resources Technology* Nov. 2021, 143(11): 113002. JERT-20-1788 <https://doi.org/10.1115/1.4049607>.
7. Boyun Guo and Rashid Shaibu. 2020. An Analytical Model for Axial Force Transfer and the Maximum Compression Point of Work Strings in Extend Reach Drilling. *Insights Min Sci technol.* Volume 2 Issue 4 - December 2020, DOI: 10.19080/IMST.2020.02.555592.
8. Nan Zhang and Boyun Guo. 2020. Use of Mathematical Model to Predict the Maximum Permissible Stage Injection Time for Mitigating Frac-Driven Interactions in Hydraulic-Fracturing Shale Gas/Oil Wells. *Journal of Energy Resources Technology* (August 2021), Vol. 143 / 082901-1, published online November 19, 2020.
9. Boyun Guo, Rashid Shaibu, and Xu Yang. 2020. Analytical Model for Predicting Productivity of Radial-Lateral Wells. *Energies* 2020. 13(23), 6386; <https://doi.org/10.3390/en13236386>.
10. Boyun Guo, Xiao Cai and Jim Lee. 2020. Mathematical Modeling of Fluid Flow through Channels behind Well Casing, *Petroleum & Petrochemical Engineering Journal* (August 7, 2020), Vol. 4, No. 4. DOI: 10.23880/ppej-16000231.
11. Boyun Guo, Rashid Shaibu, and Xuejun Hou, 2020. Crack Propagation Hypothesis and a Model to Calculate the Optimum Water-Soaking Period in Shale Gas/Oil Wells for Maximizing Well Productivity. *SPE Drilling & Completion* (Dec. 2020).
12. Xuejun Hou, Boyun Guo, and Ellis Ekhatior. 2020. Technical Feasibility of Using Frac-Packed Wells for Producing Natural Gas from Offshore Gas Hydrate Reservoirs. *J Pet Environ Biotechnol.* 10:400. doi: 10.35248/2157-7463.19.10.400.
13. Zhiyong Huang, Boyun Guo, and Rashid Shaibu. 2020. Lab-Supported Hypothesis and Mathematical Modeling of Crack Development in the Fluid-Soaking Process of Multi-Fractured Horizontal Wells in Shale Gas Reservoirs. *Energies* 2020, 13, 1035; doi:10.3390/en13051035.
14. Xu Yang and Boyun Guo. 2020. Statistical analyses of reservoir and fracturing parameters for a multifractured shale oil reservoir in Mississippi. *Energy Sci Eng.* 2020; 8: 616–626. DOI: 10.1002/ese3.537.

15. Yan Xi, Jun Li, Qian Tao, Boyun Guo, Gonghui Liu. 2020. Experimental and numerical investigations of accumulated plastic deformation in cement sheath during multistage fracturing in shale gas wells. *Journal of Petroleum Science and Engineering* 187 (2020) 106790.
16. Xiao D, Wang M, Guo B, Weng D. Effect of surface wetting behavior of ceramic proppant on the two-phase flow across the interface of sandstone and fracture. *Energy Sci Eng.* 2019;00:1–7. <https://doi.org/10.1002/ese3.595>.
17. Boyun Guo and Xu Yang. 2019. Use of a New Analytical Model to Match Production Data and Identify Opportunities to Maximize Well Productivity in the Tuscaloosa Marine Shale Reservoir. *SPE Production & Operations* (October 2019).
18. Yang, X. and Guo, B. 2019. Productivity analysis of multi-fractured shale oil wells accounting for the low-velocity non-Darcy effect, *Journal of Petroleum Science and Engineering* 183 (2019) 106427. doi: <https://doi.org/10.1016/j.petrol.2019.106427>.
19. Dong Xiao, Boyun Guo and Xiaohui Zhang. 2019. An Analytical Model for Describing Sequential Initiation and Simultaneous Propagation of Multiple Fractures in Hydraulic-Fracturing Shale Oil/Gas Formations. *Energy Science & Engineering* (2019). DOI: 10.1002/ese3.421.
20. Yi Luo, Erxiu Shi, Yin Feng, Boyun Guo and Liehui Zhang. Finite Element Investigation of Flow Field below Asymmetric Drill Bits for Reverse Circulation in Drilling Tight Oil and Gas Reservoirs. *CMES* (Oct 2019). Vol.121, no.1, pp.105-122.
21. Xi Yan, Li Jun, Zha Chunqing, Guo Boyun, and Liu Gonghui. 2019. A new investigation on casing shear deformation during multistage fracturing in shale gas wells based on microseism data and calliper surveys. *Journal of Petroleum Science and Engineering* (June 2019).
22. Xu Yang and Boyun Guo. 2019. A Data-Driven Workflow Approach to Optimization of Fracture Spacing in Multi-fractured Shale Oil Wells, *energies* (23 May 2019).
23. Xuejun Hou, Boyun Guo, and Xiaohui Zhang. 2019. Mathematical Modeling of Fluid Flow to Unconventional Oil Wells with Radial Fractures and Its Testing with Field Data. *Journal of Energy Resources Technology* (July 2019). Vol. 141
24. Xu Yang, Boyun Guo, and Xiaohui Zhang. 2019. An Analytical Model for Capturing the Decline of Fracture Conductivity in the Tuscaloosa Marine Shale Trend from Production Data, *energies* (21 May, 2019).
25. Gao Li, Boyun Guo, Jun Li, and Ming Wang. 2018. A Mathematical Model for Predicting Long-Term Productivity of Modern Multifractured Shale Gas/Oil Wells. SPE-194495-PA. *SPE Drilling and Completion Journal*, Vol. 34, Issue 01 (March 2019).
26. Chengli Zhang, Peng Wang, Boyun Guo, Guoling Song. 2018. Analytical modeling of productivity of multi-fractured shale gas wells under pseudo-steady flow conditions. *Energy Science & Engineering*: 2018; 6: 819–827. DOI: 10.1002/ese3.258
27. Yi Feng, Gao Li, Yingfeng Meng, and Boyun Guo. A Novel Approach to Investigating Transport of Lost Circulation Materials in Rough Fracture, *Energies* 2018, 11(10), 2572; <https://doi.org/10.3390/en11102572>.
28. Guo, B., Shan, L., Jiang, S., Li, G., and Lee, J. The Maximum Permissible Fracturing Pressure in Shale Gas Wells for Wellbore Cement Sheath Integrity, *Journal of Natural Gas Science and Engineering*, 56 (2018) 324-332.
29. Guo, B. and Shan, L. Heat Transfer in Counter-Current Two Phase Flow Applied to Feasibility Study of Harvesting Natural Gas from Seabed Hydrates, *International Journal of Heat and Mass Transfer*, 126 (2018) 603-612.
30. Shan, L., Guo, B., Weng, D., Liu, Z., and Chu, H. Posteriori Assessment of Fracturing Propagation in Re-fractured Vertical Oil Wells by Pressure Transient Analysis, *Journal of Petroleum Science and Engineering* (2018), PETROL12431.
31. Cai, X., Guo, B., Lee, J., and Li, B. A semi-analytical model for predicting screen-out in hydraulic fracturing horizontal wells, *Journal of Natural Gas Science and Engineering*, 52 (2018) 117–127.

32. Wang, G. Du, H. and Guo, B. Determination of Viscosity and Wall Slip Behavior of a Polymer-Gel Used for Leakage Control From Couette Viscometry Data, *J. Energy Resour. Technol* 140(3), 032910 (March 2018), doi: 10.1115/1.4038384.
33. Li, J., Cao, L., Guo, B. and Zhang, X. Prediction of productivity of high energy gas-fractured oil wells, *Journal of Petroleum Science and Engineering*, 160 (2018) 510-518.
34. Shan, L., Cao, L., Guo, B., Identification of flow units using the joint of WT and LSSVM based on FZI in a heterogeneous carbonate reservoir, *Journal of Petroleum Science and Engineering* (2017), doi: 10.1016/j.petrol.2017.11.015.
35. Shi, Y., Guo, B., Guan, Z., Xu, Y, and Zhang, B. 2017. Influence of the initial loaded state on the stress distribution of a wellbore system, *Journal of Petroleum Science and Engineering*, 157 (2017) 547-557.
36. Boyun Guo, Na Wei, Jinze Song, and Jim Lee. 2017. Prediction of the Maximum Allowable Bottom Hole Pressure in CO₂ Injection Wells, *Journal of Petroleum Science and Engineering*, Vol. 156, July 2017, Pages 575–581.
37. Boyun Guo, Jun Li, Jinze Song, and Gao Li. 2017. Mathematical modeling of heat transfer in counter-current multiphase flow found in gas-drilling systems with formation fluid influx, *Journal of Petroleum Science* (May 2017). DOI 10.1007/s12182-017-0164-3.
38. Feng, F., Wang, X, Guo, B. and Ai, C. 2017. Mathematical model of fracture complexity indicator in multistage hydraulic fracturing, *Journal of Natural Gas Science and Engineering*, 38 (2017) 39-49.
39. Xiao Cai and Boyun Guo, 2017. Semi Analytical Model for Predicting Screenout in Hydraulic Fracturing in Vertical Wells, *Journal of Natural Gas Engineering* (June, 2017), Vol. 2, No. 1, 1-19.
40. Li, B., Li, H., Guo, B., Cai, X., and Konggidinata, M.I. 2017. A New Numerical Solution to Predict the Temperature Profile of Gas-Hydrate-Well Drilling. *SPE Journal* (February 2017). SPE-185177-PA <http://dx.doi.org/10.2118/185177-PA>.
41. Boyun Guo, Gao Li, Jinze Song, and Jun Li. 2017. A feasibility study of gas-lift drilling in unconventional tight oil and gas reservoirs, *Journal of Natural Gas Science and Engineering*, 37 (Jan. 2017), 551–559.
42. Boyun Guo, Gao Li, and Jinze Song, 2016. An Analytical Thermal-Model for Optimization of Gas-Drilling in Unconventional Tight-Sand Reservoirs, *Journal of Sustainable Energy Engineering* (Dec 2016), Vol. 2, No. 2, 108-126.
43. Boyun Guo and Jinze Song, 2016. An Improved Model for Predicting Fluid Temperature in Deep Wells, *Mathematical Modelling in Engineering Applications* (October 2016), Vol. 1, No. 1, 20-25.
44. Xuyue Chen, Deli Gao, Boyun Guo, and Yongcun Feng, 2016. Real-time optimization of drilling parameters based on mechanical specific energy for rotating drilling with positive displacement motor in the hard formation, *Journal of Natural Gas Science and Engineering*, 35 (Sept. 2016), pp 686-694.
45. Xuyue Chen, Deli Gao, and Boyun Guo, 2016. A Method for Optimizing Jet-Mill-Bit Hydraulics in Horizontal Drilling, *SPE Journal* (April 2016), pp 16-22.
46. Zheng Zhang and Boyun Guo. 2016. An Experimental Investigation of the Critical Flowback Velocity in Hydraulic-Fracturing Shale Gas Wells with Sand as Proppant, *Hydraulic Fracturing Journal*, Vol. 3, No 2, 2016, pp 76-80.
47. Liqun Shan, Boyun Guo, and Xiao Cai, 2016, Development of an Analytical Model for Predicting the Fluid Temperature Profile in Drilling Gas Hydrates Reservoirs, *Journal of Sustainable Energy Engineering*, Volume 3, Number 3, February 2016, pp. 254-269(16).
48. Zheng Zhang and Boyun Guo. 2016. The Critical Flow back Velocity in Hydraulic-Fracturing Shale Gas Wells, *Int. Journal of Engineering Research and Applications*, Vol. 6, Issue 2, (Part - 6) February 2016, pp. 7-11.

49. Shi, H., Li, G., Guo, B., and He, Z., "Hydraulic pulse jet: Test of characteristics and field applications in ultra-deep wells," *Journal of Natural Gas Science and Engineering*, Vol.27(2015), pp. 200-206.
50. Ben Li, Boyun Guo, Hui Li, Yucai Shi. 2015. An Analytical Solution to Simulate the Effect of Cement/Formation Stiffness on Well Integrity Evaluation in Carbon Sequestration Projects, *Journal of Natural Gas Science & Engineering*, 27, 1092-1099.
51. Ben Li, Boyun Guo, Hui Li, Yin Feng and Jim Lee. 2015. Leak Risk Assessment for Plugged Wells in Carbon Sequestration Projects, *Journal of Sustainable Energy Engineering* Vol. 3, No. 1, 44-65.
52. Ben Li, Boyun Guo, Hui Li, and Yuanlong Zhou. 2015. Well Degradation Assessment and Leakage Risk Prediction in a Carbon Sequestration Project Using Neural Networks, *Journal of Sustainable Energy Engineering*, Vol. 2, No. 4, pp. 331-349(19).
53. Yucai Shi, Ben Li, Boyun Guo, Zhichuan Guan, Hui Li. 2015. An Analytical Solution to Stress State of Casing-Cement Sheath-Formation System with the Consideration of Its Initial loaded State and Wellbore Temperature Variation, *International Journal of Emerging Technology and Advanced Engineering*, Volume 5, Issue 1 (Jan. 2015), pp59-65.
54. Jun Li, Boyun Guo, and Ben Li. 2015. A closed form mathematical model for predicting gas temperature in gas-drilling unconventional tight reservoirs," *Journal of Natural Gas Science and Engineering*, 2, 284-289.
55. Boyun Guo, Jinze Song, and David O. Ugwu: "An Experimental Investigation of the Critical Flowback Velocity in Hydraulic-Fracturing Shale Gas Wells," *Hydraulic Fracturing Journal* (Jan 2015), Vol. 2 (1), 19-25.
56. Xiaohui Zhang and Boyun Guo. "A Review of CO₂ Behavior During Geological Storage and Leakage Assessment," *International Journal of Recent Development in Engineering and Technology* (October, 2014), Vol. 3 (4), 14-23.
57. Xuyue Chen, Deli Gao, Boyun Guo, Limin Luo, Xiaobo Liu, and Xin Zhang: "A new method for determining the minimum gas injection rate required for hole cleaning in horizontal gas drilling." *Journal of Natural Gas Science and Engineering*, 21 (2014), 1084-1090.
58. Jun Li, Boyun Guo, Shunji Yang, and Gonghui Liu: "The Complexity of Thermal Effect on Rock Failure in Gas-Drilling Shale Gas Wells," *Journal of Natural Gas Science and Engineering*, Vol. 21 (Sept 2014), 255-259.
59. Boyun Guo, Jia Shan, and Yin Feng: "Productivity of Blast-Fractured Wells in Liquid-Rich Shale Gas Formations," *Journal of Natural Gas Science and Engineering* (April 14, 2014). 18C, pp. 360-367. DOI: 10.1016/j.jngse.2014.03.018.
60. Jun Li, Rui Pan, Boyun Guo, and Jia Shan: "Thermal Stability of Brine Foams for Shale Gas Drilling," *Journal of Natural Gas Science and Engineering* (March 2014), Vol. 17. 131-135.
61. Hongyun Zhang, Deli Gao, Saeed Salehi, and Boyun Guo. 2014. Effect of Fluid Temperature on Rock Failure in Borehole Drilling, *ASCE Journal of Engineering Mechanics*, Vol. 140, No. 1, 82-90.
62. Boyun Guo and Deli Gao: "The Significance of Fracture Face Matrix Damage to the Productivity of Fractured Wells in Shale Gas Reservoirs," *Petroleum Science and Technology*, 32:1-9, 2014. DOI: 10.1080/10916466.2011.585365.
63. Jia Li, Boyun Guo, and Yin Feng: "An Analytical Solution of Fracture-Induced Stress and Its Application in Shale Gas Exploitation," *Journal of Energy Resources Technology*, Vol. 136(2), 023102 (Nov. 26, 2013), doi:10.1115/1.4025714.
64. Boyun Guo and Deli Gao: "New Development of Theories in Gas Drilling," *Petroleum Science*, Springer, December 2013, 10 (4): 507-514. DOI: 10.1007/s12182-013-0302-5.
65. Ling, K., Wu, X., Guo, B. and He, J.: "A New Method to Estimate the Surface Separators Optimum Operating Pressures," *SPE Oil and Gas Facilities Journal* (June 2013), Vol. 2, No. 3.
66. Li, J., Guo, B., Liu, G., and Liu, W.: "The Optimum Range of Nitrogen Injection Rate in Shale Gas Well Drilling," *SPE Drilling & Completion* (March 2013), Vol. 28, No. 1.

67. Li, J., Guo, B., and Ling, K.: "Flow Diverting for Reducing Wellbore Erosion in Gas-Drilling Shale Gas Wells," *Journal of Energy Resources Technology* (May 24, 2013), Vol. 135, No. 3.
68. Ling, K., Guo, B. and Zhang, H.: "Numerical Simulation of Transient Flow in a Gas Pipeline and Tank," *SPE Oil and Gas Facilities Journal* (Dec. 2012).
69. Li, J., Yang, S., Guo, B., Feng, Y., and Liu, G.: "Distribution of the Sizes of Rock Cuttings in Gas Drilling," *CMES*, Vol. 2340, No.1, pp.1-18, 2012.
70. Liu, C., Zhang, N., and Guo, B.: "Experimental Investigations of Heavy-Foam Properties for Offshore Drilling," *Russian Oil and Gas Technology* (September 2012), No. 9, 21-26.
71. Li, J., Guo, B., Gao, D., and Ai, C.: "The Effect of Fracture Face Matrix Damage on Productivity of Fractures with Infinite and Finite Conductivities in Shale Gas Reservoirs," *SPE Drilling & Completion* (September 2012), Vol. 27, No. 3.
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73. Tabatabaei, M, Ghalambor, A., and Guo, B.: "An Analytical Solution for Water Coning in Vertical Wells," *SPE Production & Operations* (May 2012), Vol. 27, No. 2.
74. Daneshy, A., Guo, B., Krasnov, V., and Zimin, S.: "ICD Design: Revisiting Objectives and Techniques," *SPE Production & Operations* (February 2012), Vol. 27, No. 1.
75. Guo, B., Gao, D., Ai, C., and Qu, J.: "Critical Oil Rate and Well Productivity in Cold Production from Heavy-Oil Reservoirs," *SPE Production & Operations* (February 2012), Vol. 27, No. 1.
76. Zhang, H, Zhang, H., Guo, B., and Gang, M.: "Analytical and Numerical Modeling Reveals the Mechanism of Rock Failure in Gas UBD," *Journal of Natural Gas Science and Engineering* (January 2012), Vol. 4, 29-34.
77. Guo, B. and Gao, D.: "A New Analytical Well Model for Characterizing Shale Gas Reservoirs," *Russian Oil and Gas Technology* (January 2012), No. 1, 55-62.
78. Guo, B., Zhang, H., and Gang, M.: "Effect of Low Fluid Temperature on Rock Failure," *Russian Oil and Gas Technology* (May 2011), No. 5, 22-27.
79. Sun, K., Guo, B., and Saputelli, L.: "Multinode Intelligent-Well Technology for Active Inflow Control in Horizontal Wells," *SPE Drilling & Completion* (September 2011), Vol. 26, 3.
80. Guo, B.: "Corrections to Horizontal Drainhole Productivity Equations for Wellbore Friction Effect," *Journal of Petroleum Science and Engineering* (January 2010), Vol. 70, 3-4, pp 344-349.
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82. Ai, C., Zhao, W. and Guo, B.: "Casing Collapse-Strength Reduction Under Lateral Loads From Yielding Shales in the Daqing Oilfield," *SPE Drilling & Completion Journal* (December 2008).
83. Guo, B., Ling, K., and Ghalambor, A.: "A Rigorous Composite-IPR Model for Multilateral Wells," *SPE Production & Operations Journal* (May 2008).
84. Fang, Q, Guo, B., and Ghalambor, A.: "Formation of Underwater Cuttings Piles in Offshore Drilling," *SPE Drilling & Completion Journal* (March 2008).
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86. Guo, B. and Ghalambor, A.: "Characterization and Analysis of Pressure Instability in Aerated Liquid Drilling," *Journal of Canadian Petroleum Technology* (July 2006).
87. Wang, X., Guo, B., and Ghalambor, A: "2nd and 3rd-Order Finite Difference Methods with Counter-Error Formulations for Solving the Convection-Diffusion Equation," *Polish Academy of Sciences— Archives of Mining Sciences*, 51, No. 1, 2006.
88. Sun, K, Guo, B. and Ghalambor, A.: "An Analytical Solution for Aerated Mud and Foam Drilling Hydraulics in Deviated Holes," *Journal of Canadian Petroleum Technology* (March, 2006).
89. Guo, B., Ghalambor, A., and Xu, C: "A Systematic Approach to Predicting Liquid Loading in Gas Wells," *SPE Production & Operations Journal* (February, 2006).

90. Guo, B., Duan S., and Ghalambor, A.: "A Simple Model for Predicting Heat Loss and Temperature Profiles in Insulated Pipelines," *SPE Production & Operations Journal* (February 2006).
91. Guo, B., Holder, D.W, and Tester, J: "Two-Phase Oxidizing Flow in a Volatile Removal Assembly Reactor under Microgravity Conditions," *American Institute of Aeronautics and Astronautics Journal* (December 2005).
92. Sun, K., Samuel, R. and Guo, B.: "Effect of Stress Concentration Factors due to Corrosion on Production String Design," *SPE Production & Facilities Journal* (Nov. 2005).
93. Guo, B. and Wang, X.: "Testing of New High-Order Finite Difference Methods for Solving Convection-Diffusion Equation," *E-Journal of Reservoir Engineering* (October, 2005).
94. Guo, B.: "Analytical Solutions for Steady and Transient Temperatures in Oil Pipelines," *Journal of Petroleum Science & Technology* (March 2005) 23, 307-325.
95. Guo, B., Holder, D.W, and Schechter, D.S.: "Mathematical Modeling of Wastewater Oxidation under Microgravity Conditions," *American Journal of Applied Science* (Feb. 2005), 2, No. 2.
96. Guo, B., Holder, D.W, and Carter, L.: "Distribution of Flowing Fluids in a Confined Porous Medium under Microgravity Conditions," *Journal of Physics of Fluids* (August 2004), 16, No. 8.
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98. Guo, B., Ghalambor, A., and Duan, S.: "Correlation between Sandstone Permeability and Capillary Pressure Curves," *Journal of Petroleum Science & Engineering* (August 2004), 43, No. 3-4.
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100. Guo, B.: "Proof of the Young-LaPlace Equation Using the Theory of Calculus of Variations Applied to Petroleum Fluids," *Journal of Petroleum Science & Technology* (July 2003), 21. No. 7-8.
101. Al-Bemani, A., Guo, B., and Ghalambor, A.: "The Challenge of Model Identification in Well Test Interpretation – A Unique Build Up Analysis Case Study," *Journal of Petroleum Science & Technology* (June 2003), 21. No. 5-6.
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103. Guo, B. and Schechter, D.S.: "A Simple and Rigorous IPR Equation for Vertical and Horizontal Wells Intersecting Long Fractures," *Journal of Canadian Petroleum Technology* (July 1999).
104. Schechter, D.S. and Guo B.: "Parachors Based on Modern Physics and Their Uses in IFT Prediction of Reservoir Fluids," *SPE Reservoir Evaluation & Engineering Journal* (June 1998).
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