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KEY SKILLS

- Reservoir monitoring and simulation.
- Modeling of fractured reservoirs.
- Field experience of drilling and well completions in varieties of conditions with top operating and service companies.
- Firsthand experience in drill-string optimization and troubleshooting.
- Unique skills in petroleum economics and risk analysis & decision making
- Keen interest in miscible gas injection and scale deposition (asphaltene/wax/resin).
- Genuine skills in controlling sand production.
- Excellent reservoir management skills and leadership in EOR/IOR technologies.
- Proficient in analyses of field, experimental and numerical data for proper understanding of reservoir behavior.
- Over five years of direct experience in handling geopressure drilling and their-zone situations.
- Keen interest in sharing knowledge through teaching and on-job training.
- Excellent management skills of multidisciplinary multicultural teams in harsh environment.

EDUCATION

June 2004	Ph.D. Petroleum Engineering, Petroleum Engineering Program, Civil and Resource Engineering Department, Dalhousie University, Halifax, Nova Scotia, Canada. Thesis: <i>Numerical Simulation and Experimental Modeling of Matrix/Fracture Flow in Porous Media</i>
May 1990	M.Sc. Petroleum Engineering, Technical University of Nova Scotia, Halifax, Canada. Thesis: Detection and Evaluation of Geopressures, Sirte Basin
March 1982	B.Sc. Petroleum Engineering, Petroleum Engineering Department, Faculty of Engineering, El-Fateh University, Tripoli, Libya. B.Sc. Project: Decline-Curve Analysis of the Oligocene B.C. Oil Field, Oasis Oil Company

WORK EXPERIENCE

August 2008- Current
Full-Time

FACULTY POSITION

The Petroleum Institute, Abu Dhabi, UAE

- Associate Professor, Petroleum Engineering
- Chair, Recruitment Committee
- Teaches Onboard Training (OBC) program for ADNOC and Opco's Engineers
- Member, Post-Graduate studies and Research Committee
- Member, PE ABET Accreditation Committee
- Co-Principal Investigator of the research project: Asphaltene deposition problems during production and CO₂ gas injection – Production Chemistry Project (approximately \$3.322MM budget)

August 2007- August
2008
Full-Time

FACULTY POSITION

Texas Tech University, Lubbock, Texas, USA

- Assistant Professor, Petroleum Engineering
 - Offer with excellent start-up package

April 2005 – August 2007
Full-Time

CONSULTANCY

SMART International, Halifax, N.S., Canada

- *Senior Reservoir Engineering Consultant*
 - Antelat Field reservoir Development study.
 - Development of three laboratories of PVT & EOR, drilling and core analysis for a petroleum engineering department at a university in the Middle East.
 - Comprehensive reservoir study for developing the Hiseville Field – Waterflooding + CO₂ injection, Kentucky for ONYX International Exploration ILL, Houston, USA

Dalhousie University, Halifax, N.S., Canada

- *Assistant Professor*
 - Teaching graduate/undergraduate petroleum engineering courses

Jan. 2005–March 2006
Full-Time

Research

Dalhousie University, Halifax, N.S., Canada

- □ *Researcher (AIF/ACOA Oil & Gas Project):*
 - Developing Mathematical/Numerical/Experimental multiphase models for porous media flow using new diffusivity equations.
 - Participating in constructing and commissioning of a 3-D Spot Gas Permeameter based on a newly developed principle.
 - Gas hydrate forming and breaking modeling
 - Book writing on Advanced Reservoir Simulation (in press).

1994 – 2001
Full-Time

OIL INDUSTRY

National Oil Corporation, NOC, Tripoli - Libya

- *Researcher, Petroleum Engineering:*
 - Supervising laboratory PVT Analysis Studies
 - Supervising Laboratory Routine and Special Core Analysis Studies.
 - Contributed one Part of Three–Part Comprehensive Development Study of Belhedan Oil Field, Libya (Reservoir Flow Behavior and Characterization) – NOC Award Winner Project.
 - Participated in a Comprehensive Evaluation Study of Miscible Gas Displacement Using Farrud Field Gas to Increase Oil Recovery from Ghani Field, VEBA Oil Company Libya.
 - Conducted a study to determine CO₂ Minimum Miscibility Pressure (MMP) correlations for Libyan reservoir oils.
 - Conducted a study on determining rheological properties of Bouri and Buatiffel oil fields, Agip Oil Company, Libya.
 - Conducted a study on solving the inorganic scale precipitation problem in Amal Field oil wells, VEBA Oil Company, Libya.

- Conducted a study on asphaltene deposition in Bourri and Buatiffel oil fields, AGIP Oil Company, Libya.
- Supervised a study on feasibility of using iron oxides of Wadi Eshatti, Libya as alternative to the weighing material (Barite) in drilling oil and gas wells.
- Supervised a study on utilizing Umm Arrazam ore clay material as a drilling mud (Bentonite) in drilling oil and gas wells
- Conducted a multiphase flow study (oil water and solid) including design of a laboratory physical model.
- Conducted a research study on comparing MMP determination using Slim-Tube and Rising-Bubble Apparatuses.
- Member of the Technical Advisory Committee (TAC) on Petroleum Engineering.
- Member of the PRC-NOC Technical Committee for Projects Follow-Up.
- Committee member of Petroleum Research Center Master Plan.
- Member of the Technical Committee of Graduate Studies at the Petroleum Research Center.

1990 – 1994
Full-Time

Management/Research

National Oil Corporation, NOC, Tripoli, Libya

- *Head, Petroleum Engineering Department*
- *Associate Researcher, Petroleum Engineering:*
 - Established a New Unit-Operation Enhanced Oil Recovery Laboratory (Total Cost \$US 1.3 Millions).
 - Standardization of Laboratory Procedure (PVT & EOR).
 - Participated a comprehensive laboratory study of Raguba Oil Field gas miscible recovery study (lean-dry gas, hydrocarbon gas, CO₂), Sirt Oil Company, Libya

1983 – 1986
Full-Time

OIL INDUSTRY

National Oil Corporation, NOC, Tripoli

- *Assistant Researcher, Petroleum Engineering:*
 - Participated in a Study for Determining Petrophysical Properties Correlations for Libyan Reservoirs.
 - Member of a Research Team for evaluating the Feasibility of Enhanced Oil Recovery for Libyan Oil Fields – committee formed by the Oil Minister.
 - Conducting both PVT and Core Analysis Tests.

1982 – 1983
Full-Time

OIL FIELD JOB

Dowell Schlumberger Co., Libya

- *Field Engineer:*
 - Cementing oil and gas wells (over 25 jobs executed)
 - Fixing casing leaks/faulty cement jobs – CEMENT PLUGS – (over 27 jobs executed)
 - Stimulating oil wells by acidizing (over 16 jobs executed)
 - Drill-Stem testing (over 10 tests)
 - Leak-Off Testing (over 20 jobs)
 - Fishing Jobs (7 successful jobs and 2 unsuccessful)

2001 – 2004
Part-Time

Teaching Assistance

Dalhousie University, Halifax, N.S., Canada

Grading and Assisting in lecturing of Graduate Courses (Reservoir Eng. I and Reservoir Eng. II) and Undergraduate Courses (Linear Partial Differential Equations, Groundwater Modeling and Solid Waste & Landfill Engineering).

Teaching

1994 – 2001
Part-Time

University of Naser, Petroleum Eng. Dept., Tripoli, Libya

- Taught Petroleum Engineering Introduction, Fluid Flow in Porous Media and Reservoir Simulation Fundamentals courses.
- Supervising B.Sc. projects.

1995 – 2000
Part-Time

Teaching

Polytechnic Institute, Gharian, Libya

- Teaching Rock Mechanics, Workshop Technology and Fortran Computer Language courses.
- Member of the Institute Scientific Committee.

1990 – 1995
Part-Time

Teaching

El-Fateh University, Petroleum Eng. Dept., Tripoli, Libya

- Teaching Petroleum Engineering Courses.
- Supervising B.Sc. Projects.

1986 – 1990
Part-Time

Teaching Assistance

Technical University of Nova Scotia, Halifax, N.S., Canada

- Laboratory Demonstrations.
- Marking Assignments and Exams.
- Teaching Tutorial Classes.

Summer 1981
(Summer-Job)

Field Assistant Operator

Flopetrol Schlumberger (amalgamated with Schlumberger)

- Operation Helper
- Field Office Dispatcher

Summer 1980
(Summer-Job)

Student Trainee

Occidental, Libya

- Field Operator – Intisar-103 Oil Field

Summer 1979
(Summer-Job)

Student Trainee

OASIS Oil Company (now Waha Oil Co.)

- Company Man Assistant – Waha Oil Field, Defa Oil Field, Gialo Oil Field (Concession 59)

SEMINARS AND WORKSHOPS

- Presented more than 50 seminars, workshops and guest speaker lectures ranging from three-days to two-weeks in duration for both industry and academia. Subjects covered different technical aspects of reservoir management, reservoir simulation, advance reservoir engineering, drilling and well completions, reservoir engineering to non reservoir engineers and petroleum engineering to non petroleum engineers.
- Some of the seminars requested to be repeated more than four times to different groups of professionals

AWARDS & SCHOLARSHIPS:

- Killiam Trustee Scholarship, Canada 2001 - 2002
- Dalhousie University Scholarship, Canada 2001-2003
- Civil Engineering Department Graduate Scholarship, Canada 2002-2003
- Recipient of the Libyan Secretariat of Education Scholarship (\$US 60,000 plus tuition fees payment, medical coverage and book & auxiliaries allowance), 2000
- Recipient of the National Oil Corporation of Libya Scholarship for Ph.D. program, 2001-2003
- Recipient of National Oil Corporation of Libya Scholarship for Master's program, 1986-89
- Research and Teaching Assistance – Department of Min. & Pet. Eng., TUNS, Canada, Sep., 1986-90
- El-Fateh University Award for second highest GPA (Dean's List), BSc. Degree, (including full paid trip to Spain for three weeks).

MAJOR FUNDED RESEARCH AND GRANTS:

- Asphaltene deposition problem associated with CO₂ gas injection in key Libyan oil fields (US\$5.5 Million Budget), 1994.
- Feasibility of using iron ore deposits of "Wadi Eshati", Libya as a weighing material in drilling fluids alternative to the imported barite (US\$1,039,000 Budget), 1999.
- Participated a Comprehensive Energy, Environmental and Communication Research Proposal to AIF (\$2.7 Million funded by Canadian Federal Government and industrial organizations), 2002.
- A proposal on a new Expandable Completion Technique for Sand Control funded by BP America and NSERC Strategic program.
- Four provisional patent disclosures.

PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

- Member of the American Society of Petroleum Engineers (**SPE**).
- Member of the Association of Professional Engineers of Libya.
- Member of the Libyan Society of Earth Science.
- Chairman, Enhanced Oil Recovery Session, **MPC'91**; International Energy Conference, Tripoli – Libya, November, 1991.
- Chairman, Reservoir Characterization Session, **MPC'99**; International Energy Conference, Tripoli – Libya, November, 1999.
- Technical Committee Member of the Improved Oil Recovery Symposium (**IORS'99**), Tripoli, Libya, July, 1999.
- Technical Editor, SPE Journal.
- Technical Editor, Applied Mathematical and Computation Journal.
- Technical Editor, the Iranian Journal of Science and Technology.
- Technical Editor, the Iranian Journal of Optimization.
- Technical Editor, the Mediterranean Petroleum Conference "MPC".
- Technical Editor, the International Conference of Numerical Analysis and Applied Mathematics.
- Steering Committee Member,

RESEARCH INTERESTS

- Fluid Mechanics and Mass & Heat Transfer in Porous Media.
- Drilling & Well Completion.
- Miscible and Immiscible Gas Recovery Techniques.
- Characterization and Modeling of Fractured Reservoirs.

- Numerical Simulation of Non-Darcy Flow in Porous Media.
- New Techniques of Well Completion and Sand Control.
- Application of Laser Technology in Drilling and in Heavy Oil Recovery.
- Reservoir management, economics and risk analysis.

BOOK:

- **Belhaj, H.A., Islam, M.R. and Mustafiz, S., "Reservoir Simulations Handbook: An Advanced Approach"**, Gulf Publishing Co., ISBN-10: 193376211X, ISBN-13: 978-1933762111.
- **Belhaj, H.A. and Islam, M.R., "New Approach to reservoir Simulation and Management" (in press)**

PUBLISHED JOURNAL PAPERS

1. Hadi **Belhaj** and Haytham Abdulwahab: "CO₂ Breakthrough versus Gas Processing Facilities: Qualitative Appraisal", *JCPT* (accepted)
2. Hadi **Belhaj** and Haytham Abdulwahab: "Managing Breakthrough of Injected Nitrogen into a Gas Condensate Reservoir", *SPE Projects, Facilities & Construction Journal* (accepted)
3. Gabor Takacs and Hadi **Belhaj**: "Latest Technological Advances in Rod Pumping Allow Achieving Efficiencies Higher than with ESP Systems", *JCPT*, vol. 50, No. 4, 53-58, 2011.
4. Hadi **Belhaj**, Fuxi Ma, Shabbir Mustafiz, M. R. Islam, and Nasser M. Al-Huraibi: "ENHANCED MODEL FOR MULTIPHASE FLUID FLOW DESCRIPTION IN PETROLEUM RESERVOIRS WITH VISCOUS, FRICTIONAL AND INERTIAL EXTENSION", *Journal of Energy Resources Technology*. (Submitted)
5. H.A. **Belhaj**, S. Mustafiz, F. Ma, M. Satish, M. R. Islam, and N.M. Al-Huraibi: "UTILIZATION OF MODIFIED BRINKMAN'S EQUATION IN MODELING HORIZONTAL WELL FLOW", *JCPT*. (Submitted)
6. H.A. **Belhaj**, H. H. Vaziri and M.R. Islam, "Laboratory Investigation of Effective Stresses' Influence on Petrophysical Properties of Sandstone Reservoirs During Depletion", *JCPT*, vol. 48, No. 7, 2007-10-13, July 2009.
7. H.A. **Belhaj**, S. Mustafiz, F. MA, M. Satish, M. R. Islam and N.M. Al-Huraibi: "UTILIZATION OF MODIFIED BRINKMAN'S EQUATION IN MODELING HORIZONTAL WELL FLOW", *JCPT*, 2009 (submitted).
8. H.A. **Belhaj**, S. Mustafiz, F. MA, M. R. Islam and N.M. Al-Huraibi: "Formulation of Multiphase Flow in Petroleum reservoirs Utilizing Modified Brinkman Model", *Journal of Energy Resources Technology*, 2009 (in process).
9. A. Nouri, H. Vaziri, E. Kuru, H. **Belhaj** and R. Islam: "Physical and Analytical Studies of Sand Production from a Supported Wellbore in Unconsolidated Sand Media with Single- and Two-Phase Flow", *Journal of Canadian Petroleum Technology (JCPT)*, July, 2007 issue.
10. Alireza Nouri, Hans Vaziri, Hadi **Belhaj**, Rafiqul Islam, "Comprehensive Transient Modeling of Sand Production in Horizontal Wellbore", *SPE Journal*, December 2007, pp 468-474.
11. Nouri, A., H.Vaziri, H. **Belhaj**, R. Islam, "Sand Production Control: A New Set of Criteria for Modeling Based on Large Scale Transient Experiments and Numerical Investigation", *SPE Journal*, Vol. 11, No. 2, June 2006.
12. Nouri, A., Vaziri, H., **Belhaj**, H., Shomakhi, N., Butt, S., Donald, A. and Islam, R.: "Experimental Study of Sand Production from a Supported Wellbore in Weakly Consolidated Sandstone", *Geotechnical Testing Journal*, Vol. 28, 5, ISSN: 0149-6115, Sept. 2005.
13. **Belhaj**, H. Mustafiz, S. Ma, F. Satish, M. Islam, M. R.: "Modeling Horizontal Well Oil Production Using Modified Brinkman's Model", *ASME APPLIED MECHANICS DIVISION (AMD) Journal*, Vol. 256, pp 475-480, ISSN 0160-8835, 2005.
14. **Belhaj**, H.A., Agha, K.R, Butt, S.D. and Islam, M.R.: "A New Dimensionless Number to Distinguish Darcy and Non-Darcy Flow Behaviors in Porous Media," *Journal of Petroleum Science & Engineering, special issue*.
15. **Belhaj**, H.A. and Agha, K.R.: "Shifting the Margin: How About a Better Reserves Prediction

- Tool?," *EEC Innovation Journal*, Vol. 1, No. 1, pp. 41-43, [ISSN 1708-3176].
16. K.R. Agha, H.A. **Belhaj**, S. Mustafiz, N. Bjorndalen and M.R. Islam: "Numerical Investigation of the Prospects of High Energy Laser in Drilling Oil and Gas Wells" *Petroleum Science and Technology Journal*, Vol. 22, No. 9, pp. 1173-1186, 2004.
 17. **Belhaj**, H.A.: "Empirical Correlations of Petrophysical Properties for Libyan Pay Zones," *Petroleum Research Centre Journal*, March, 1985.
 18. **Belhaj**, H.A. and Hidiri, J.T.: "Detection and Evaluation of Geopressures in the Sirt Basin," *Petroleum Research Centre Journal*, July, 1984.
 19. H.A. **Belhaj**, S. Mustafiz, F. Ma, M. Satish and M.R. Islam: "Modeling Horizontal Well Oil Production Using Modified Brinkman's Model", *Energy Sources Journal*.
 20. J. Biazar, H.A. **Belhaj** and M.R. Islam: "An Analytical Approximation to Forchheimer Mathematical Model," *Applied Mathematical and Computation Journal* (accepted).
 21. Agha, K.R., Biazar, J., **Belhaj**, H.A. and Islam, M.R.: "Adomian Decomposition Method for the Solution of Transient Energy Equation in Rock Subjected to Laser Irradiation," *J. Energy Sources* (under publication).
 22. **Belhaj**, H.A., Biazar, J., Butt, S.D. and Islam, M.R.: "Adomian Solution of a Comprehensive Model to Describe Flow in Porous Media," *SPE Journal*. (in process)

PUBLISHED PEERED CONFERENCE PAPERS

23. Hadi **Belhaj**, Mohamad Haroun, and Terry Lay: "Keeping Net Cash Flow Alive for a Petroleum Exploration Project", ASME IMECE 2010, IMECE2010-37190, 12-18 November 2010, Vancouver, British Columbia, Canada.
24. H.A. **Belhaj** and G.F. Lay: "Economical Feasibility Study of Abandoned oilfields utilizing smart modeling approach: case study", paper OMAE2009-80206 presented at the 28th International Conference on Ocean, Offshore and Arctic Engineering, May 31-June 5, 2009, Honolulu, Hawaii, USA
25. Hadi **Belhaj**, Shabbir Mustafiz., Fuxi Ma and Rafiq Islam: "A New Two Phase Extension of Modified Brinkman Formulation for Fluid Flow Through Porous Media", IMECE2005-81777, 2005 ASME International Mechanical Engineering Congress and Exposition, 5-11 November, 2005, Orlando, Florida, USA.
26. Hadi **Belhaj**, Shabbir Mustafiz., Fuxi Ma and Rafiq Islam: "Comprehensive Experimental and Numerical Modeling of Coupled Porous Media/Open Channel Flow", IMECE2005-81726, 2005 ASME International Mechanical Engineering Congress and Exposition, 5-11 November, 2005, Orlando, Florida, USA.
27. **Belhaj**, H.A., Agha, K.R., Butt, S.D. and Islam M.R.: "Numerical and Experimental Determination of the Non-Darcy Coefficient," Canadian Society for Civil Engineering 31st Annual Conference, CSCE, Moncton, New Brunswick, Canada, June 4-7, 2003
28. Rahman M.A., **Belhaj**, H.A., Nouri, A.M., Koksai M and Islam M.R. "Perforation by Drilling-An Alternative Technique," Canadian Society for Civil Engineering 31st Annual Conference, CSCE, Moncton, New Brunswick, Canada, June 4-7, 2003.
29. Agha, K. R., **Belhaj**, H., and Islam, M. R.: "Transient thermal deformations of rocks during laser drilling," Canadian Society for Civil Engineering 31st Annual Conference, CSCE, Moncton, New Brunswick, Canada, June 4-7, 2003.

PUBLISHED CONFERENCE AND PRESENTATION PAPERS

30. Hadi **Belhaj** and Mokhles Mnejja: "Hydraulic Fracture Simulation of Two-phase Flow: Discrete Fracture Modeling/Mixed Finite Element Approach", SPE Reservoir Characterization and Simulation Conference and Exhibition, SPE-147028-PP, Abu Dhabi, UAE, 9-11 October 2011.
31. Hadi **Belhaj**, Terry Lay, R. Lau, L. Lau and Khulud Rahoma: "Comprehensive Energy Price Model Including Deepwater Drilling Risk", SPE Brazil Offshore Conference and Exhibition, SPE-142664-PP, Macae, Brazil, 14-17 June 2011
32. Hathyam Abdulwahab and Hadi **Belhaj**: "Managing the Breakthrough of Injected Nitrogen at Gas

- Condensate Reservoir in Abu Dhabi”, The 2010 Abu Dhabi International Exhibition & Conference (ADIPEC), SPE-137330-MS, 1-4 November 2010, Abu Dhabi, UAE.
33. Gabor Takacs and Hadi **Belhaj**: “Latest Technological Advances in Rod Pumping Allow Achieving Efficiencies Higher than with ESP Systems”, The 2010 Abu Dhabi International Exhibition & Conference (ADIPEC), SPE-136880-MS, 1-4 November 2010, Abu Dhabi, UAE.
 34. Hadi **Belhaj**, Mohamad Haroun, and Terry Lay: “Integrated Risk Analysis Criteria for Managing Exploration and Development of Oil and Gas Assets”, The 2010 SPE Western North American Regional Meeting, SPE-133626-PP, 27-29 May 2010, Anaheim, California.
 35. Hadi **Belhaj** and Nasser Al-Huraibi: “Modeling of Crude Oil Asphaltenes Deposition: In-depth Colloidal Prospective”, The 2010 SPE Production and Operations Conference and Exhibition (POCE), SPE-136087-PP, 8-10 June 2010, Tunis, Tunisia.
 36. Hadi **Belhaj**, Mohamad Haroun, Iraj Ershaghi and Terry Lay: “Handling Risk in a World of Uncertainty: Genuine Modeling Approach,” Mediterranean Petroleum Conference and Exhibition (MPC2010), Tripoli, Libya, 23-24 Feb, 2010.
 37. Hadi **Belhaj** and Nasser Al-Huraibi: “Asphaltene Stability Criteria within Oil Reservoirs and Production String,” Mediterranean Petroleum Conference and Exhibition (MPC2010), Tripoli, Libya, 23-24 Feb, 2010.
 38. Hadi **Belhaj** and Haytham Abdulwahab: “Qualitative Assessment of the Impact of CO₂ Breakthrough on Gas Processing Facilities,” Mediterranean Petroleum Conference and Exhibition (MPC2010), Tripoli, Libya, 23-24 Feb, 2010.
 39. Hadi **Belhaj**, Mohamad Haroun, Nasser Al-Huraibi: “Sample Representative Elementary Volume for Gas Permeability Measurement,” Mediterranean Petroleum Conference and Exhibition (MPC2010), Tripoli, Libya, 23-24 Feb, 2010.
 40. H.A. **Belhaj**, B. Mtawaa, M.R. Haroun and G.F. Lay: “Optimization of 3-D Gas Permeability Measurement: Utilization of Field Data”, SPE/EAGE Reservoir Characterization and Simulation Conference & Exhibition, Abu Dhabi, UAE, 19 - 21 Oct 2009.
 41. M.R. Haroun, V. Chilingar, S. Pamukcu and H.A. **Belhaj**: “The Feasibility of Using Electrokinetic Technology for Electronically Enhanced Oil Recovery (EOR) application for different crudes of Abu Dhabi Carbonate Rock Formations”, International Petroleum Technology Conference IPTC, Doha, Qatar, 7 – 9 December 2009.
 42. H.A. **Belhaj** and G.F. Lay: “Future Projection of Energy Prices: A Predictive Model”, SPE Western Regional Meeting, SPE-109986-PP, 31 March – 2 April, 2008, Bakersfield, California, USA.
 43. Hadi **Belhaj** and Alireza Nouri: “Reservoir Rock Behavior Pre and Post Pore Collapse during Production”, SPE-IPTC-11657-PP, International Petroleum Technology Conference, 4-6 December 2007, Dubai, UAE.
 44. H.A. **Belhaj**, J. Biazar, S. Mustafiz and M.R. Islam: “Adomian Decomposition Method Solves the Modified Brinkman Model for Porous Media Flow: Steady-State and Unsteady-State Approach” 3rd International Forum and Exhibition (TOG 2006), Tripoli, Libya 12-14 September, 2006.
 45. **Belhaj**, H.A. and Islam, M.R.: “Reservoir Permeability: Innovative Measurement Based on Novel Concept” SPE 100427, The 2006 SPE Western Regional/AAPG Pacific Section/GSA Cordilleran Section Joint Meeting, 8–6 MAY, 2006, Anchorage, Alaska, USA.
 46. **Belhaj**, H.A. and Islam, M.R.: “Three Dimensions Permeability Utilizing a New Gas Spot Permeameter” SPE 100428, Gas Technology Symposium, 15-18 May, 2006, Calgary, Alberta, Canada.
 47. H.A. **Belhaj**, S. Mustafiz and M.R. Islam: “NEW GENERATIONS OF RESERVOIR SIMULATORS”, 2nd Exposition on Innovation, Education and Economic Development, Halifax, N.S., Canada, 28-30 November, 2005.
 48. H.A. **Belhaj** and M.R. Islam: “3-D Spot Gas Permeameter for Proper Meaning and Measurement of Reservoir Permeability”, 2nd Exposition on Innovation, Education and Economic Development, Halifax, N.S., Canada, 28-30 November, 2005.
 49. H.A. **Belhaj**, I. Khan and M.R. Islam: “Exploration versus IOR: In Light of High Oil Prices, Where to Go?”, 2nd Exposition on Innovation, Education and Economic Development, Halifax, N.S.,

Canada, 28-30 November, 2005.

50. **Belhaj**, H.A., Biazar, J., Butt, S.D. and Islam, M.R.: "Adomian Solution of Modified Brinkman Model to Describe Porous Media Flow," paper SPE 89426 presented at the SPE/DOE Fourteenth Symposium on Improved Oil Recovery, Tulsa, Oklahoma, USA, April 17-21, 2004.
51. **Belhaj**, H.A., Ryan, R.J., Butt, S.D., Frempong, P., Donald, A. and Islam, M.R.: "A New Coupled Fluid Flow/Stress Model for Porous Media Behaviour: Numerical Modeling and Experimental Investigation," paper SPE 90265 presented at the 2004 SPE International Petroleum Conference, Puebla, Mexico, 8-9 November, 2004.
52. Nouri, A., H.Vaziri, H. **Belhaj**, R. Islam, "Sand Production Control: A New Set of Criteria for Modeling Based on Large Scale Transient Experiments and Numerical Investigation", SPE Annual Technical Conference and exhibition, Houston, TX, October 2004.
53. **Belhaj**, H.A., Agha, K.R, Butt, S.D. and Islam, M.R.: "Simulation of Non-Darcy Flow in Porous Media Including Viscous, Inertial and Frictional Effects," paper SPE 84879, *proc.*, presented at the 2003 SPE International Improved Oil Recovery Conference in Asia Pacific, Kuala Lumpur, Malaysia, October 21-21, 2003.
54. **Belhaj**, H.A., Agha, K.R, Butt, S.D. and Islam, M.R.: "A New Dimensionless Number to Distinguish Darcy and Non-Darcy Flow Behaviors in Porous Media," 10th Annual India Oil & Gas Review Symposium and Exhibition, Mumbai, India, September 8-9, 2003.
55. **Belhaj**, H.A. and Agha, K.R.: "Shifting the Margin: How About a Better Reserves Prediction Tool?," 1st Innovation Colloquium, *proc.*, Halifax, Nova Scotia, Canada, 28-29 April, 2003.
56. **Belhaj**, H.A., Agha, K.R, Butt, S.D. and Islam, M.R.: "A Comprehensive Numerical Simulation Model for Non-Darcy Flow Including Viscous, Inertial and Convective Contributions," paper SPE 85678, *proc.*, presented at the 27th Annual SPE International Technical Conference and Exhibition, Abuja, Nigeria, August 4-6, 2003.
57. **Belhaj**, H.A., Agha, K.R, Nouri, A.M., Butt, S.D. and Islam, M.R.: "Numerical and Experimental Modeling of Non-Darcy Flow in Porous Media," paper SPE 81037, *proc.*, SPE Latin American and Caribbean Petroleum Engineering Conference, Port-of-Spain, Trinidad, West Indies, April 27-30, 2003.
58. **Belhaj**, H.A., Agha, K.R, Nouri, A.M., Butt, S.D., Islam, M.R. and Vaziri, H.F.: "Numerical Modeling of Forchheimer's Equation to Describe Darcy and Non-Darcy Flow in Porous Medium System," paper SPE 80440, *proc.*, SPE Asia Pacific Oil and Gas Conference and Exhibition, Jakarta, Indonesia, April 15-17, 2003.
59. **Belhaj**, H.A., Agha, K.R, Nouri, A.M., Butt, S.D., Vaziri, H.F. and Islam, M.R.: "Numerical Simulation of Non-Darcy Flow Utilizing the New Forchheimer's Diffusivity Equation," paper SPE 81499, *proc.*, Middle East Oil Show, Bahrain, April 5-8, 2003.
60. **Belhaj**, H.A., Nouri, A.M., Agha, K.R., Butt, S.D. and Islam, M.R.: "Modeling of Matrix/Fracture Flow in Sandstone Reservoirs: Experimental Approach," *proc.*, PAPG-SPE Annual Technical Conference, Islamabad, Pakistan, 2-4 November 2002.
61. **Belhaj**, H.A., Nouri, A.M., Vaziri, H.H., Butt, S.D. and Islam, M.R.: "Experimental Determination of the Effect of Pore Collapse on Permeability and Porosity of Sandstone Reservoirs," *proc.*, PAPG-SPE Annual Technical Conference, Islamabad, Pakistan, 2-4 November 2002.
62. H. **Belhaj**, A. Nouri and Islam, M.R.: "Modeling of Matrix/Fracture Flow in Sandstone Reservoirs: An Experimental Approach", OTANS Conference, Halifax, October, 2002.
63. **Belhaj**, H.A., Bek-Derna, A.M., Naaji, M.M. and Saleh, A.Y.: "Utilization of Umm Arrazam Clay as a Drilling Mud in Oil and Gas Wells," MPM Conference and Exhibition, Assayut, Egypt, 5-7 April, 2000.
64. **Belhaj**, H.A.: "Application of Pressure-Transient Tests in Field Development – Belhedan Field Case," Offshore West Africa, Abidjan, Cote d'Ivoire, 21-23 March, 2000.
65. **Belhaj**, H.A.: "Inorganic Scale Precipitation Problem in Amal Oil Field, Libya," 6th Mediterranean Conference and Exhibition, Tripoli, Libya, 23-25 November, 1999.
66. **Belhaj**, H.A. and Dahab, M.F.: "Miscible Gas Displacement of Facha and Gir Reservoir Oils Using Farrud Gas (Ghani Field, Libya)," Improved Oil Recovery Symposium, Tripoli, Libya, 7-8 July, 1999.

67. **Belhaj**, H.A.: "Effect of Rheological Properties on Fluid Behaviour of Bouri and Buattifel Crude Oils," 5th International Energy Conference, Seoul, Korea, Oct. 1993.
68. **Belhaj**, H.A. and Nasar, M.: "Determination of Pore Pressure and Fracture Gradients in Eastern Sirt Basin Area," Mediterranean Petroleum Conference and Exhibition, Tripoli, Libya, March, 1992.
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