□ PERSONAL INFORMATION

• Name: Meshal K. Algharaib

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□ ACADEMIC QUALIFICATIONS

- Ph. D. in Petroleum and Natural Gas Engineering The Pennsylvania State University 2002 with a minor in high-performance computing.
- M. Sc. in Petroleum and Natural Gas Engineering The Pennsylvania State University 1998.
- B. Sc. in Petroleum Engineering Kuwait University 1994.

□ RESEARCH INTERESTS

- Reservoir Simulation
- Enhanced Oil Recovery
- Natural Gas Engineering
- Energy Resources

□ PROFESSIONAL EXPERIENCES

- Acting Chairman of Petroleum Engineering Department Kuwait University (October 2024 Present).
- Director of Enhanced Oil Recovery Center (EORC) Kuwait University (May 2021 Present).
- Director Master in Petroleum Engineering Program Petroleum Engineering Dep. Kuwait University (Dec. 2020 Sep. 2023).
- Director of Petroleum Fluid Research Center (PFRC) Kuwait University (October 2020 May 2021).
- Assistant Teaching Professor John and Willie Leone Family Department of Energy and Mineral Engineering - The Pennsylvania State University. (April 2014 – August 2018).
- Director Master in Petroleum Engineering Program Petroleum Engineering Dep. Kuwait University (Sep. 2010 Dec. 2012).
- Associate Professor Petroleum Eng. Dept. Kuwait University (June 2009 Present)
- Director Engineering Training & Alumni Centre Kuwait University (April 2007 Sep. 2009)
- Visiting Researcher OPEC (Aug. 2007 Sep. 2007).
- Consultant Kuwait Oil Company (Dec 2005 June 2011).
- Member Cultural Development Team Amiri Diwan (Sep. 2005 May 2006).
- Assistant Professor Petroleum Engineering Dept. Kuwait University (Aug. 2002 June 2009).
- Postgraduate Engineer- Kuwait University (Dec. 1995 Aug. 2002).
- Drilling Engineer Kuwait Oil Company (Aug. 1994 Dec. 1995).

□ PROFESSIONAL AFFILIATIONS

• Society of Petroleum Engineers, Richardson, TX, USA.

• Society of Core Analysts, California, USA.

→ AWARDS

• Best Young Researcher for the Academic Year 2006-2007. College of Engineering & Petroleum-Kuwait University.

• Outstanding Contribution in Reviewing. Journal of Petroleum Science and Engineering. (2014)

□ RESEARCH ACTIVITIES

(a) FUNDED PROJECTS (1 K.D = \$3.25)

- 1. Tailor-Made Polymer/Polymer Composite for High-Temperature, High-Salinity Reservoirs (Project KOC04/25) Kuwait Oil Company (Budget 129,200 K.D) (**Ongoing** Principal Investigator).
- 2. Integration of Nanomaterials with Polymers and Surfactants for Enhanced Heavy Oil Recovery from Oil Fields. Project submitted to Kuwait University (Budget 109,566 K.D) (Under Review)
- 3. Graphene Nanocomposites with Embedded Quantum Dots for Enhanced Oil Recovery. Project # PN23-15EM-1847- KFAS (Budget 86,100 K.D) (**Ongoing**, Co-Investigator)
- 4. Incorporating Fluid Flow Through Porous Media to Evaluate Polymer Retention: Experimental Approach. Project RE02/21 Kuwait University (Budget 87,085 K.D) (**Ongoing**, Principal Investigator)
- 5. Development of an Efficient Approach to Predict Oil Recovery Factor and CO2 Storability During CO2-EOR Projects. Project # RE04/19 Kuwait University (Budget 7,300 K.D) (**Completed 2023**, Principal Investigator)
- 6. Lab Evaluation of Polymer Flooding (Project KOC01/21)– Kuwait Oil Company (Budget 171,770 K.D) (Completed, Principal Investigator)
- 7. The Effect of Preconditioning on Polymer Stability in Rocks. Project # EP02/10 Kuwait University (Budget 38,800 K.D) (Completed, Co-Investigator)
- 8. Evaluation of miscible flood performance in Kuwait. Project # EP01/11 (XP01/09) Kuwait University (Budget 244,920 K.D) (Completed, Co-Investigator).
- 9. Investigation of Polymer Flood Performance in High Salinity Oil Reservoirs. Project # EP02/07 Kuwait University (Budget 26,910 K.D) (Completed 2012, Principal Investigator)
- 10. Performance of the Thermal Recovery Processes in Middle Eastern Reservoirs. Project # EP01/06 Kuwait University (Budget 5,875 K.D) (Completed 2009, Principal Investigator)
- 11. Evaluation of Heavy Oil Recovery by Hot Water Injection in a Middle Eastern Reservoir. Project # EP03/**05** Kuwait University (Budget 15,890 K.D) (**Completed**, Co-Investigator)
- 12. The Use of Integrated Simulation Approach to Optimize Oil Recovery from a Carbonate Reservoir. Project # EP01/04 Kuwait University (Budget 16,460 K.D) (Completed, Co-Investigator)
- 13. The Efficiency of Oil Recovery Using Horizontal Well in Waterflooding Projects. Project # EP03/03 Kuwait University (Budget 1,750 K.D) (Completed 2005, Principal Investigator)
- 14. The Effect of Gravity and Flow Rate on Oil Recovery. Project # ZE01/04 Kuwait University (Budget 2,000 K.D) (Completed 2004, Principal Investigator)

(b) <u>Supervised/Co-Supervised Graduate Students (Thesis & Projects)</u>

1. Thermal Stability and Ionic Effects on Viscosity of ATBS Polymers: A Study of Temperature-Dependent Behavior and the Influence of Mono- and Divalent Ions. Abdullah Albasri, M.S. Thesis (**Ongoing**)

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2. Enhancing Oil Recovery in Sandstone Cores: Investigating the Reduction in Residual Oil Saturation Through Surfactant/Polymer Flooding and Capillary Number Effects. Reem Almutairi, M.S. Thesis (**Ongoing**)

- 3. Investigating Flow Path Blockage in Porous Media: The Role of Gel Polymers in Core Sample Permeability Reduction. Abdullah Alotaibi, M.S. Thesis (**Ongoing**)
- 4. Flow Diversion of Polymer Solutions in Heterogeneous Porous Media: Evaluating Polymer Flow Distribution Across Core Samples with Similar and Varied Permeabilities. Khaled Abdulaziz, M.S. Thesis (**Ongoing**)
- 5. Experimental investigation of Surfactants for Enhanced Oil Recovery in Berea Sandstone rocks. Fatimah Abdulghfour M.S. Thesis (Co-Supervision **Ongoing**)
- 6. Enhancing Oil Recovery: Investigating the Effect of Surfactant-Induced Interfacial Tension Reduction Using Spontaneous Imbibition and Drainage Cells. Reem Alsubaeie, M.S. Thesis (**Ongoing**)
- 7. The Effect of Chemical Potential Gradient on Polymer Adsorption, Rawan Al-Kandari, M.Sc. Thesis (Completed Spring **2025**).
- 8. Experimental of High Salinity Polymer Injection Core flooding in Wara Formation, Asmaa Al-Saeedi M.Sc. Thesis (Co-Supervisor, Completed December **2024**).
- 9. Polymer Concentration Measurements Methods Comparative Analysis, Dalal Almutairi, M.Sc. Thesis (Completed December **2023**).
- 10. Diffusion of Tracer in Porous media, Laila Abdullah, M.Sc. Thesis (Completed November **2023**).
- 11. Assessment of Pore Volume Interpretations in Polymer Flooding, Nourah Sultan, M.Sc. Thesis (Completed May 2023).
- 12. Gravity Effect on Capillary Number and CDC curve, Shouq Abdulmuhsen, M.Sc. Thesis (Completed May 2023).
- 13. Performance of Polymer Flooding in Linear Systems Numerical Investigation. Saleh H. Alsayegh. M. Sc. Thesis (Co-supervisor, Completed November **2018**)
- 14. Parametric Investigation of the Areal Displacement Efficiency of Polymer Flooding. Khadhr Ahmed Altarabulsi. M. Sc. Thesis (Co-Supervised Completed April **2014**)
- 15. The Performance of Gas Assisted Gravity Drainage Process (GAGD) Parametric Investigation. Mariam Salloum. M. Sc. Thesis (Completed June **2013**)
- 16. Enhancement of Polymer Flood by Preflush Injection Numerical Investigation. Mohammed Abedi. M. SC. Thesis (Completed June 2012)
- 17. Numerical Simulation Study of Optimum Surfactant/Polymer Slug for Maximum Oil Recovery. Zamzam M. Ahmed. M. Sc. Thesis (Completed May **2010**)
- 18. Investigation of the Performance of CO₂-EOR Projects Economical Analysis. Fatima Almejadi. M. Sc. Project (Completed May **2010**)
- 19. Predicting the Optimum Number of Steam Generators for Thermal Recovery Project Sensitivity Analysis. Hadeel Baroon. M. Sc. Project (Completed May **2010**)
- 20. Application of an EOR Method to Boost the Productivity from a Middle Eastern Heavy Oil Carbonate Reservoir. Waleed Al-khamees. M. Sc. Thesis (Completed Spring 2007)
- 21. Investigating the Performance of a Waterflood Pilot on a Middle Eastern Reservoir. Hayya Al-Mayyan. M. Sc. Project (Completed Fall **2006**)
- 22. Parametric Investigation of SWAG Process. Wafa AL-Ghanim. M. Sc. Thesis. (Completed Spring 2006)

23. Storing Natural Gas in a Kuwaiti Oil Reservoir. Awatif Al-Waheeb. M. Sc. Project. (Completed - May **2005**)

24. Modeling the Performance of Thermal Recovery Techniques on Heavy Oil Deposit in the Middle East. Ali Al-Shatti. M. Sc. Project. (Completed - Spring **2005**)

□ PROFESSIONAL ACTIVITIES

- Member of the Technical Committee for the SPE Improved Oil Recovery Conference (SPEIOR 2026), 21-23 April **2026**, Tulsa, Oklahoma.
- Member of the Technical Committee for the 2026 Kuwait Oil & Gas Show (KOGS2026), 3 5 February **2026**, Kuwait.
- Invited Speaker, SPE Section Technical Seminar on Enhanced Oil Recovery. October 7 − 8, 2025, Almaty, Kazakhstan.
- Member of the Technical Committee for the Middle East Oil, Gas Geosciences Show (MEOSGEO 2025), 16 18 September **2025**, Manama, Bahrain.
- Member of the Technical Committee for the Society of Core Analysts 2025 Symposium (SCA 2025). Hannover, Germany. August 25-29, **2025**.
- Keynote Speaker International Conference on Petroleum, Hydrogen and Decarbonization ICPHD 2024. IIT(ISM) Dhanbad, India. 12-14 December **2024**.
- Member of the Scientific Committee for Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC 2024), 4 7 November **2024**, Abu Dhabi, UAE.
- SPE Students Chapter Award Judge 2024.
- Student Chapter Liaison of the Kuwait SPE Section (2023 2025)
- Member of the steering committee for the SPE Workshop: Maximizing value from existing assets through Wells, Reservoir and Facilities Management (WRFM), Kuwait 29-30 November **2023**.
- Member of the Technical Committee for the International Petroleum Technology Conference (IPTC24) held 12-14 February **2024**, Dhahran, KSA
- Presenter. Lab Evaluation of Polymer Flooding. Center of Excellence. Kuwait Oil Company. June 19, 2023.
- Member of the Technical Committee for the Middle East Oil, Gas Geosciences Show (MEOSGEO 2023), 19 21 February **2023**, Manama, Bahrain.
- Member of the Technical Committee for the International Petroleum Technology Conference (IPTC22) held 21-23 February **2022**, Riyadh, KSA.
- Member of the committee to evaluate a proposal to establish a PhD program Department of Petroleum Engineering College of Engineering and Petroleum, Kuwait University. (2021)
- Program committee member for the International Heavy Oil Conference and Exhibition, 14 16 December **2020**, Kuwait.
- Speaker Carbon Capture Utilization & Storage (CCUS) Workshop. KFAS October 22nd **2019**.
- Member of the Joint Graduate Program between Petroleum Engineering Department and Earth and Environmental Sciences Department (June 2007 September **2012**).
- Member of the Organizing Committee for the Fourth Kuwait International Petroleum Conference & Exhibition (KIPCE 2012) held during 10-12 December **2012**, Kuwait.
- Member of the Organizing Committee for the Third Kuwait International Petroleum Conference
 Exhibition (KIPCE 2009) held during 14-16 December 2009, Kuwait.
- Member of the Technical Committee for the World Congress on Alternative Energy Applications organized by the Kuwait Society of Engineers. Kuwait, October **2009**.

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• Member of the Technical Committee for the Gas Field Development Symposium organized by KISR, Kuwait, October 27-29, **2008**.

- Chairman of the Technical Committee for the Second Kuwait International Petroleum Conference & Exhibition (KIPCE 2005) held during 10-12 December **2005**, Kuwait.
- Member of the Technical Committee for the International Petroleum Technology Conference (IPTC) held during 21-23 November **2005**, Qatar.
- Member of the committee to evaluate the establishment of award for the best scientific achievements during Sabbatical leave—College of Engineering and Petroleum, Kuwait University.
- Member of the committee to establish Rules and Regulations for Teaching Contributions in Common Engineering Courses College of Engineering and Petroleum, Kuwait University.
- Coordinator and member of various committees in the Department of Petroleum Engineering, Kuwait University.

□ SHORT COURSES & TRAINING

- Lab Evaluation of Polymer Flooding Workshop. Two weeks training program for KOC reservoir engineers. (July 8th July 18th, **2024**).
- Lab Evaluation of Polymer Flooding Workshop. One week training program for KOC reservoir engineers. (April 30th May 4th, **2023**).
- Intensive Drilling Training Program for Non-Petroleum Engineers. One-month training program for newly hired engineers at Kuwait Oil Company, (May 2009 June 2009, May 2010).
- Basic Reservoir Engineering. Kuwait Petroleum Corporation. (May 2008).
- Basic Petroleum Technology. Kuwait Petroleum Corporation. (March 2005, March 2008, April 2009).

■ WORKSHOP PARTICIPATIONS

- SPE Workshop: Maximizing value from existing assets through Wells, Reservoir and Facilities Management (WRFM) (Kuwait, 29-30 November **2023**).
- Fundamentals of EOR SPE Improved Oil Recovery Conference (April 25th 29th, **2022**)
- Current Status of Carbon Capture, Utilization and Storage (CCUS) SPE Improved Oil Recovery Conference (April 25th 29th, **2022**).
- SPE EOR Virtual Workshop. "EOR for More Sustainable Future: The Role of Chemical and Hybrid EOR". June 15 16, **2021**
- EOR Fundamentals SPE Improved Oil Recovery Conference (August 31st September 4th, 2020)
- Polymer Flooding SPE Improved Oil Recovery Conference (August 31st September 4th, 2020)
- Carbon Capture Utilization and Storage Workshop KPC. (October 22nd, **2019**)
- Enhanced Oil Recovery. (January 6th 9th **2008**)
- Heavy Oil Recovery. (October 28th November 1st, **2007**)
- CMG Reservoir Simulation Software. (November 2006).
- Continuous Program Improvement Based on ABET Engineering Criteria 2000. (December 2004)
- Outcome-Based Course and Classroom Assessment. (December **2003**)
- Teaching for Learning. (May **2004**)
- Designing Courses for Learning. (May 2004)
- Assignment for Learning. (May 2004)
- Professional Development workshop in Engineering Design Teaching. (May 2004)

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□ CONSULTATIONS

- Polymer Research Study for SNF. SNF. (**Ongoing** July September **2025**)
- Polymer Research Study for WORKO Regional. Worko Regional. (**Ongoing** July September **2025**)
- Comparative Evaluation of SNF Polymers and Field Reference Polymer for EOR. SNF (Completed April 2024).
- Evaluation of NUOER Biological Technology Co. Polymers for EOR. NUOER. (Completed August 2024).
- Evaluation of Miscible Flood Performance in Kuwait. Kuwait Petroleum Company (KPC) (Completed June 2013).
- Determination of Sand Settling Time for Lower Fars Formation. Kuwait Oil Company. (Completed November 2010).
- Investigating the Performance of Horizontal Wells in the Marrat Reservoir West Kuwait a Numerical Study. Kuwait Oil Company. (Completed June 2010).
- Reservoir Performance Evaluation by Miscible Flooding Numerical Simulation Study. Kuwait Oil Company. (Completed June 2009).
- Performance of Thermal Recovery Processes in Lower Fars Formation Experimental and Numerical Evaluation. Kuwait Oil Company. (Completed December 2008).
- Improving KPC-PTC Technical Training Program. Petroleum Training Center, Kuwait Petroleum Corporation (Completed April 2004).

□ CONFERENCE PARTICIPATIONS

- SPE Almaty Section Technical Seminar on Enhanced Oil Recovery. October 7 8, **2025**, Almaty, Kazakhstan.
- 38th International Symposium of the Society of Core Analysts, Hanover, Germany. August 25 28, **2025**.
- SPE OKL Oil and Gas Symposium. April 14 -18, **2025**, Oklahoma. USA.
- SPE Kuwait International Symposium: Sustainable Oil and Gas Production Development During the Energy Transformation, 27-28 November **2024**, Kuwait
- Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC 2024), 4 7 November **2024**, Abu Dhabi, UAE.
- 35th International Symposium of the Society of Core Analysts, Fredericton, New Brunswick, Canada. August 26 29, **2024**.
- 2024 SPE Improved Oil Recovery Conference, Tulsa, Oklahoma, USA, 22-25 April 2024.
- SPE Annual Technical Conference and Exhibition, San Antonio, TX, USA, October 16-18, 2023.
- 3rd KPC JCCP Kuwait Hydrogen Symposium, Kuwait City, Kuwait, June 8th, **2023**.
- Middle East Oil, Gas and Geosciences Show (MEOS-GEO), Manama, Bahrain, 19-21 February 2023.
- SPE Improved Oil Recovery Virtual Conference (April 25th 29 **2022**)
- International Petroleum Technology Conference (IPTC) 2022, Riyadh, KSA, (February 21, 2022 February 23rd, **2022**)
- SPE Improved Oil Recovery Virtual Conference (August 31st September 4th, **2020**)

No.

- Kuwait Oil and Gas Show and Conference (KOGS 2019), Kuwait, October 13 16, **2019**.
- Kuwait International Petroleum Conference & Exhibition (KIPCE 2012), Kuwait, 10-12 December 2012.
- Eighteenth SPE Improved Oil Recovery Symposium, Tulsa, Oklahoma, USA, 14-18 April 2012.
- International Petroleum Technology Conference IPTC, Bangkok, Thailand, 7-9 February 2012.
- SPE International Heavy Oil Conference and Exhibition, Kuwait, December 12 14, **2011**.
- SPE Annual Technical Conference and Exhibition, Denver, CO, USA, October 30 November 2, 2011.
- 2011 SPE Saudi Arabia Section Technical Symposium, Dhahran, Kingdom of Saudi Arabia, May 15-18, **2011**.
- CO2 EOR Projects: Opportunities & Challenges in the Middle East, Abu Dhabi, UAE, 4 7 October **2010**.
- SPE Annual Technical Conference and Exhibition, Florence, Italy, 20 -22 September 2010.
- EOR Conference at Oil & Gas West Asia, Muscat, Sultanate of Oman, April 11-13, 2010.
- Sour Oil & Gas Advanced Technology 2010 (SOGAT 2010) Conference and Exhibition, Abu Dhabi, UAE, March 28 April 1, 2010.
- 2009 SPE Saudi Arabia Section Technical Symposium, Dhahran, Kingdom of Saudi Arabia, May 9-11, **2009**.
- The 1^{6th} Middle East Oil & Gas Show and Conference, Manama, Bahrain, 15-18 March **2009**.
- The Fourth International Conferences on Energy Research and Development (ICERD-4), Kuwait, 17-19 November **2008**.
- Gas Field Development Symposium organized by KISR, Kuwait, October 27-29, **2008**.
- 2008 SPE Asia Pacific Oil & Gas Conference and Exhibition, Perth, Australia, October 20-22, 2008.
- 70th EAGE Conference & Exhibition Incorporating SPE Europe, Roma, Italy, June 9-12, **2008**.
- 2008 SPE Saudi Arabia Section Technical Symposium, Dhahran, Kingdom of Saudi Arabia, May 10-12, **2008**.
- SPE Annual Technical Conference and Exhibition, Anaheim, California, USA, November 2007.
- Kuwait World Energy & Chemicals Exhibition and Symposium, Mishref Kuwait October 22-25, **2007**.
- Carbon Dioxide (CO2) Management for Enhanced Oil Recovery (EOR) workshop organized by Kuwait Institute for Scientific Research (KISR), Kuwait, May 14-15, **2007**.
- The 15th Middle East Oil & Gas Show and Conference, Manama, Bahrain, 12-14 March 2007.
- 2006 International Symposium of the Society of Core Analysts, Trondheim, Norway, September 12-16, **2006**.
- 2006 SPE Saudi Arabia Section Technical Symposium, Dhahran, Kingdom of Saudi Arabia, May 21-23, **2006**
- Kuwait International Petroleum Conference & Exhibition (KIPCE 2005) held during 10-12 December 2005, Kuwait.
- 2005 International Symposium of the Society of Core Analysts, Toronto, Canada, August 21-25, **2005**.
- 2005 SPE Saudi Arabia Section Technical Symposium, Dhahran, Kingdom of Saudi Arabia, May 14-16, **2005**.
- The 14th Middle East Oil & Gas Show and Conference, Manama, Bahrain, 12-15 March 2005.

• The 11th Abu Dhabi International Petroleum Exhibition and Conference, Abu Dhabi, UAE 10 - 13 Oct **2004**.

- AAPG-SPE Eastern Meeting in Pittsburgh, Pennsylvania, USA, 6 10 September **2003**.
- ARTC Petrochemical 2003, Singapore, March 19-21, **2003**.
- Kuwait International Petroleum Exhibition and Conference (KIPEC 2002), Kuwait, December 2002.
- SPE Annual Technical Conference and Exhibition, Houston, Texas, USA, October 1999.
- The 1999 SPE Mid-Continent Operations Symposium. Oklahoma City, Oklahoma, USA, 28–31 March 1999.
- 3rd International Conference on Horizontal Well Technology and Trade Show, Calgary, Alberta, Canada, November 1-4, **1998**.

□ GRADUATE & UNDERGRADUATE COURSES TAUGHT

- Advanced Enhanced Oil Recovery (Graduate Level)
- Reservoir Modeling (Graduate Level)
- Advanced Reservoir Engineering (Graduate Level)
- Numerical Reservoir Simulation (Graduate Level)
- Enhanced Oil Recovery (Graduate Level)
- Fundamentals of Chemical Enhanced Oil Recovery Processes (CEOR) (Graduate Level)
- Water Management in Oil Industry (Graduate Level)
- Well Testing
- Introduction to Petroleum Engineering Design
- Petroleum Engineering Design
- Secondary Recovery
- Natural Gas Reservoir Engineering
- Reservoir Engineering
- Fundamentals of Petroleum Engineering
- Probability and Statistics for Engineers
- Introduction to Petroleum Engineering

PUBLICATIONS

A- Journal Papers

- 1. **Meshal Algharaib**, Abdullah Alajmi & Osamah Al-Omair. "Assessment of hydrodynamic polymer retention and mobility of HPAM polymers in sandstones". Submitted to *Petroleum Science and Technology*.
- 2. Abdullah Alajmi, **Meshal Algharaib** & Mahmoud Ali. "Experimental Study on the Injectivity, Adsorption, and In-Situ Rheology of HPAM Polymer in Intact and Fractured Sandstone". Accepted for publication in *Petroleum Exploration and Production Technology*. Volume 15, article number 58 (2025).
- 3. **Meshal Algharaib** & Abdullah Alajmi. "The effect of slug arrangement on HPAM polymer injectivity and retention in sandstone". Accepted for publication in *Journal of Porous Media*. February **2025**.

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4. **Meshal Algharaib** & Abdullah Alajmi. "Estimating oil recovery factor and CO₂ storage capacity for CO₂-EOR projects using Non-Linear Regression Analysis". *Journal of Engineering Research*. (Available online: 4 September **2024**).

- 5. Adel Malallah, Ibrahim Sami Nashawi & **Meshal Algharaib**. "A comprehensive analysis of transient rate and rate derivative data of an oil well intercepted by infinite-conductivity hydraulic fracture in closed systems". *Journal of Petroleum Exploration and Production Technology*. **14**, 805–822 (**2024**). https://doi.org/10.1007/s13202-023-01732-0
- 6. Mariam Salloum, **Meshal Algharaib** & Abdullah Alajmi. "The Performance of Gas Assisted Gravity Drainage Process Parametric Investigation". *Journal of Engineering Research*, GCC 1st Engg. Symposium Special Issue. Kuwait University. October **2023**. Kuwait.
- 7. Abdullah Alajmi & **Meshal Algharaib**. "Visualization and analysis of preflush effect on polymer front stability in rocks using X-RAY CT". *Journal of Porous Media*. 24(8): 71–81 (2021).
- 8. **Meshal Algharaib,** Abdullah F. Alajmi & Turgay Ertekin. "Investigation of heavy oil displacement by water injection". *Journal of Engineering Research*. Vol. 7 No. 3. Pp. 304-319. September **2019**.
- 9. A. F. Alajmi, **M. Algharaib** & K. Al-Hamad. "Estimation of Sand Settling Time in Heavy Oil". *Petroleum Science and Technology*. 33:1418–1424, **2015**.
- 10. Abdullah Alajmi, **Meshal Algharaib**, Ridha Gharbi, Huda Alenezi, Bader Almatar & Khalaf Al-Enezi. "Experimental Investigation of CO₂ Miscible Flood in West Kuwait". *Journal of Engineering Research*. Vol. 3 No. 3. Pp. 124-140. September **2015**.
- 11. **M. Algharaib**, A. Alajmi & Ridha Gharbi. "Assessment of hot-water and steam floodings in Lower Fars reservoir". *Journal of Engineering Research*. Vol. 2. No. 1. Pp. 184-200. March **2014**.
- 12. **M. Algharaib**, A. Alajmi, & R. Gharbi. "Improving polymer flood performance in high salinity reservoirs". *Journal of Petroleum Science and Engineering*, 115 (**2014**) 17 23.
- 13. Abdullah F. Alajmi, Ridha Gharbi & **Meshal Algharaib.** "The effect of heterogeneity and well configuration on the performance of hot water flood". *Journal of Petroleum Science and Engineering*, 122 (**2014**) 524 -533.
- 14. M. Abedi & M. Algharaib. "Optimization of polymer flood performance by preflush injection numerical investigation". *Journal of Engineering Research*. Kuwait University. Vol. 1. No. 2. Pp. 101-119. September **2013**. Kuwait.
- 15. Ridha Gharbi, Abdullah Alajmi & **Meshal Algharaib.** "The Potential of a Surfactant/Polymer Flood in a Middle Eastern Reservoir". *energies*, 5, 58-70; **2012**.
- 16. **M. Algharaib** & N. Abu Al-Soof. "Economical Evaluation of CO₂-EOR Projects in the Middle East". *Petroleum Science and Technology*, 28: 198-217, **2010**.
- 17. Abdullah F. Alajmi, Ridha Gharbi, & **Meshal Algharaib.** "Investigating the Performance of Hot Water Injection in Geostatistically Generated Permeable Media". *Journal of Petroleum Science and Engineering*, 66 (2009) 143 155.

18. **Meshal Algharaib**, Ridha Gharbi, Adel Malallah & Wafaa Al-Ghanim. "Parametric Investigations of a Modified Water-Alternating-Gas Injection Technique". *Journal of Porous Media*, Vol. 10 No. 7 (2007) 633-655.

- 19. Adel Malallah, Ridha Gharbi & **Meshal Algharaib** "Accurate Estimation of the World Crude Oil PVT Properties Using Graphical Alternating Conditional Expectation". *Energy and Fuels*, (2006) 20, 288-298.
- 20. **Meshal Algharaib**, Ridha Gharbi & Adel Malallah. "Scaling Immiscible Displacements in Porous Media with Horizontal Wells". *Transport in Porous Media*, (2006) 65: 89–105.
- 21. Saad F. Alkafeef, **Meshal K. Algharaib** & Abdullah F. Alajmi. "Hydrodynamic thickness of petroleum oil adsorbed layers in the pores of reservoir rocks". *Journal of Colloid and Interface Science*, 298 (2006) 13-19.
- 22. **M. Algharaib** & R. Gharbi. "The Performance of Water Floods with Horizontal and Multilateral Wells". *Petroleum Science and Technology*, 25:995–1012, **2007**.
- 23. Jaber H. Almedeij and **Meshal K. Algharaib**. "Influence of sand production on pressure drawdown in horizontal wells: Theoretical evidence". *Journal of Petroleum Science and Engineering*, 47 (2005) 137-145.

B- Conference Papers

- 1. Alabudullah, M., **Algharaib, M.**, Seright, R., and Sanaseeri, A. "A Multi-Scale Evaluation of Polymer Injectivity and Fracture Behavior in the Burgan Field". Paper SPE 224998 to be presented at the 2025 SPE Oman Petroleum & Energy Show (OPES), Muscat, Oman, May 12-14, **2025**.
- 2. Rawan Alkandari, Mahmoud Ali, **Meshal Algharaib**, & Abdullah Alajmi. "Investigating the Effect of Chemical Gradient in Polymer Flooding". Paper SCA2024-1044 presented at the 35th International Symposium of the Society of Core Analysts, Fredericton, New Brunswick, Canada. August 26 29, **2024**.
- 3. Shouq Alabdumuhsen, **Meshal Algharaib**, Osamah Al-Omair, & Mahmoud Ali. "Investigation of residual oil saturation at different capillary number regions through Surfactant-Polymer flood experiments". Paper SCA2024-1043 presented at the 35th International Symposium of the Society of Core Analysts, Fredericton, New Brunswick, Canada. August 26 29, **2024**.
- 4. Mariam Salloum, **Meshal Algharaib**, & Abdullah Alajmi. "Gas Assisted Gravity Drainage Process Parametric Investigation". Paper presented at the First GCC Engineering Symposium. Conference Center, Kuwait University. October 29-31, **2023**.
- 5. Abdullah F. Alajmi and **Meshal K. Algharaib**. "Fracture-Matrix Interaction during Polymer Flood". Paper presented at the International Symposium of the Society of Core Analysts held in Snowmass, Colorado, USA, 21-26 August **2016**.
- 6. Alajmi, A., **Algharaib, M.**, Gharbi, R., Alenezi, H., AlMatar, B. and Al-Enezi, K. 'Evaluation and Investigation of Miscible Flood in Kuwait Case Study". Paper SPE 173175 presented at the SPE Saudi Arabia Section Technical Symposium, 21-24 April **2014**, AlKhobar, Saudi Arabia.

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7. Mohammed Abedi, and **Meshal Algharaib:** "Optimization of Polymer Flood Performance by Preflush Injection - Numerical Investigation" Paper SPE 163280 presented at the 2012 SPE Kuwait International Petroleum Conference and Exhibition, Dec 10 - 12, **2012**, Kuwait City, Kuwait.

- 8. **Algharaib, M.** Alajmi, A., and Gharbi, R.: "Enhancing Recovery in High Salinity Oil Reservoirs through Optimized Polymer Flood" Paper IPTC 14685 presented at the International Petroleum Technology Conference, 7-9 February **2012**, Bangkok, Thailand.
- 9. **Algharaib, M**. Alajmi, A., and Gharbi, R.: "Investigation of Polymer Flood Performance in High Salinity Oil Reservoirs" Paper SPE 149133 presented at the SPE Saudi Arabia Section Technical Symposium, 15-18 May **2011**, AL Khobar, Saudi Arabia.
- 10. Al-Ghanim, W., Gharbi, R., and **Algharaib, M.**: "Designing a Simultaneous Water Alternating Gas Process for Optimizing Oil Recovery", Paper SPE 120375 presented at the EUROPEC/EAGE Conference and Exhibition, 8-11 June **2009**, Amsterdam, The Netherlands.
- 11. **Algharaib, M**. Alajmi, A., and Gharbi, R.: "Performance of Thermal Recovery Processes in a Middle Eastern Reservoir" Paper SPE 126081 presented at the SPE Saudi Arabia Section Technical Symposium, 9-11 May **2009**, AL Khobar, Saudi Arabia.
- 12. Alajmi, A., Gharbi, R., and **Algharaib, M**.: "Performance of Hot Water Injection in Heterogonous Reservoirs using Multilateral Wells", Paper SPE 126100 presented at the SPE Saudi Arabia Section Technical Symposium, 9-11 May **2009**, AL Khobar, Saudi Arabia.
- 13. **Algharaib, M**.: "Potential Applications of CO2-EOR in the Middle East" Paper SPE 120231 presented at the 16th Middle East Oil & Gas Show and Conference (MEOS 2009), Manama, Bahrain, 15-18 March **2009**.
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