TECHNICAL EDUCATION ACADEMY

Dr. Faycal DJEBBAS

Instructor

Career synopsis

Reservoir Simulation Engineer with 16 years of experience in dynamic reservoir characterization, numerical modeling, and simulation. Proficient in constructing, calibrating, and validating black-oil and compositional models using Halliburton-Landmark Nexus and SLB Eclipse & Petrel RE. Skilled in history matching, sensitivity analysis, production forecasting, and full-field development planning, with a strong focus on optimizing reservoir performance, enhancing recovery factors, and supporting integrated reservoir management strategies.
Strong background in PVT analysis and EOS modeling (PVTsim), well test interpretation (KAPPA), and production system modeling (Petex IPM suite – Prosper, GAP, MBAL). Proficient in petrophysical analysis using Interactive Petrophysics (IP) with hands-on experience applying machine learning techniques for reliable porosity and permeability prediction. Recognized for collaborative work with geoscientists and production engineers to drive optimal reservoir management and the right decision-making.

Professional experience

July 2009-October 2019 - Reservoir Simulation Engineer - Sonatrach, Algeria/Hassi Messaoud

- • Responsible for reservoir simulation modeling of the Hassi Berkine Satellite fields (HBNSE, BKNE, and SFSW) located in southeastern Algeria, using Halliburton-Landmark Nexus software.
  • Conduct reservoir simulation studies covering all aspects of the workflow, including QA/QC of the static geological model, upscaling, and history matching against observed production and pressure data
  • Perform forecast simulation studies on the integrated full-field model, accounting for multiple standalone fields tied to a common production facility (CPF), and optimize Water Alternating Gas Injection (WAGI) cycles by adjusting gas/water injection rates and minimizing gas flaring using Halliburton-Landmark Nexus software.
  • Calibrate reservoir models using both manual and automated methods to ensure a smooth transition between history matching and forecast phases.
  • Prepare annual budget cases by incorporating all relevant field assumptions, including new well implementation, hook-up schedules, worko
- Curriculum development
- Personnel training
- Knowledge test / assessment

February 2022-Until now - Senior Reservoir Simulation Engineer - Halliburton, India and Kuwait

- Project: ONGC Jorhat Asset. (Dayalpur & Borholla reservoirs)
  • Collaborate with the G&G team on the Borholla field (Assam-Arakan Basin) to enhance Borholla reservoir characterization through an integrated study incorporating dynamic data (pressure and production data) including:
  o Reservoir Compartmentalization,
  o Natural Fractures Intensity MAP,
  o Sand Distribution, and Well Interference MAP.
  • Collaborated with the G&G team to integrate dynamic data (production and pressure) for 3D static

model construction of Dayalpur field,
• Conduct reservoir engineering analyses to prepare key inputs for dynamic modeling, including material balance calculations, relative permeability curves, and well modeling.
• Built fluid models for Dayalpur and Borholla reservoirs using PVTP, ensuring consistency and tuning quality of available PVT data.
• Construct the Dayalpur dynamic reservoir model and conduct a reservoir simulation study, including the QC of the static geological model and performing hi

February 2020-Until now - Consultant Sr. Reservoir Simulation Engineer (Remotely) - Oil Stream Services (OSS), Algeria

- Perform quality control (QC) of the reservoir simulation models included in the proposed Plan of Development (POD) submitted by the Joint Venture Groupement, including model structure, input data consistency, and alignment with field development objectives:
  • Reservoir Model Construction and all included files,
  • Validation of reservoir property adjustments throughout the history matching exercise to match the observed production data.
  • Validation of the PVT EOS model integrated into the dynamic reservoir model by rebuilding it from the included PVT file and verifying its tuning against laboratory PVT data.
  • Validation of the SCAL data integrated into the dynamic reservoir model,
  • Validation of the integrated well and surface facility constraints within the dynamic model to confirm accurate representation of CPF water and gas handling limits.
  • Validation of the robustness and effectiveness of the constructed dynamic reservoir simulation model to support decisions related to the dri
- Personnel training

Education and qualifications

Type	**Name**
2012 - 2017, Ph.D	University Of Kasdi Merbah Ouargla -Algeria, Reservoir Engineering
2007 - 2009, Master	University of Pau and Pay de l'Adour PAU -France, Reservoir Engineering

Language: English, Arabic