

Naeem Ul. Hussain, Head of Field Development

Reservoir Engineer, Author & US Fulbright Scholar

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Legal Status: Green Card/Permanent Resident (USA)

Summary

Reservoir Engineer with +15 years of experience in the E&P industry across the globe, specializing in reservoir engineering, field development, production optimization, acquisition & divestures (A&D) with robust understanding of E&P operations. Proven ability to deliver technical & commercial success with a strong background in project management, business economics & petroleum law with unique blend of qualifications in petroleum engineering, economics & law. Adept at driving new business development, corporate/ strategic planning & cost optimization. Strong leadership, communication & mentoring skills with experience in managing cross-functional teams & collaborating with JV partners, government agencies and stakeholders.

Skills

- **Classical Reservoir Engineering:** Reserves Estimation (Various Methods) & Forecasting, Well Test Analysis (PTA), Rate Transient Analysis (RTA), Decline Curve Analysis (DCA), Material Balance, PVT Modelling, Nodal Analysis (Network Modelling) , 3rd Party Reserves Studies , Acquisition & Divestiture (A&D), Oil & Gas Data Analysis Skills etc
- **Advanced Simulation:** History Matching, Production Forecasting, Uncertainty & Risk Analysis etc, Subsurface -Surface Models Coupling, Supervision of 3rd Party Integrated Reservoir Studies (Worked on Clastic, Carbonates, Single & Dual Porosity, Tight & Conventional Models), Water Flooding Screening & Modelling etc.
- **Field Appraisal and Development:** Evaluate and Prepare Full Field Appraisal and Development Plans of Oil / Gas Fields (Developed Numerous Fields)
- **Operations and Production Optimization:** Planning and Supervision of Rigless Jobs, Surveillance, Production Optimization (ALS -ESP , Jet Pump & Gas Lift), Stimulation, Perforation, Drilling & Workover Planning, Hydraulic Fracking) and Data Acquisitions Jobs etc
- **Petroleum Economics & Reserves Management:** Reserves Classification & Booking (PRMS), Audit (3rd Party), Petroleum Economics Evaluations/Modelling
- **Legal, Commercial & Financial Expertise:** Budget Estimations/Allocation, A&D, Production Concession Agreements (PCAs), Gas Processing & Oil Sales Agreements, Unitization & Reservoir Pooling Agreements, Negotiations with 3rd Party etc
- **Project Management & Other:** Leadership, Strategy, Decision -Making, Planning & Scheduling, Budgeting /Cost Control/Optimization, Stakeholder Management, Trouble -Shooting, Risk Management, Communication & Presentation Skills etc.

Experience Highlights

1. Pakistan Petroleum Limited (Formerly Burmah Oil, UK), 2015 to Present

PPL is a leading state-owned oil and gas exploration and production company in Pakistan, employing approximately 3,000 staff. PPL contributes nearly 22% of the country's total gas production, with output from its operated & partner-operated fields reaching around 1 billion cubic feet equivalent (bcfe) per day. PPL has operations in Middle East, Asia & Europe.

Directly involved in decision-making, supervision & execution of projects worth \$900M-\$1B to date.

Head of Field Development / Chief Reservoir Engineer

- Heading appraisal & development of various oil & gas fields across the country. Scope includes; drilling of new wells, flowlines & surface facilities.

- Successfully appraised & developed several fields: Dhok Sultan, SCN, Benari, Jhim East, Pateji X-1 etc adding **7000-8000 BOED generating 100+ MMUSD gross revenue/yr.**
- Lead a team of diversified subsurface & surface professionals. Oversee all technical & commercial due diligence of the projects including overall project management for timely first gas/oil.
- Coordinate with JVPs, external/internal stakeholders & government agencies.

Chief Business & Technical Support Coordinator to MD/CEO & COO

- Reported directly to MD/CEO & COO, driving corporate strategy, business planning & execution of new initiatives in E&P segment as well as minerals & mining division.
- Provided technical, business, & management support across all company functions to align with corporate goals.
- Generated Opportunity Dashboards, Balance Score Card, Present in Executive Committee & Board of Directors Meetings etc
- Identified & kicked-off new projects to arrest production decline potentially add upto **~36000 BOED/210 MMSCFD (generate ~300MMUSD/yr gross revenue)** in next 3-5 years & highlighted process gaps for speedy execution.

Team Lead –Production Excellence Function

- Led production optimization initiatives for **200+ wells** of the company, improving recovery through advanced reservoir engineering techniques. **Enhanced 10,000+ BOED within 9 months**, thru various techniques such as stimulation, fracking, ALS deployment, additional perforation, workover etc.
- Conducted economic evaluations & collaborated with geoscience & operations teams.

Team Lead – Field Development & Reservoir Modeling Departments

- Led a multidisciplinary team, conducting reservoir engineering, economic analysis & implementing appraisal & development plans.
- Established in-house reservoir simulation capabilities, built a modeling team, carried out static & history matching & forecasting (dynamic modeling). Carried out modeling of low-permeability, dual-porosity, & clastic reservoirs.
- Supervised numerous third-party IRS, field developments, PVT, flow assurance, unitization & reserves certification studies (**30+ studies**).
- Developed Dhok Sultan Oil Field, **saving >\$43MMUSD**, with initial production of **2,000b/d, generating \$80–90M annually.**
- Developed Benari Gas Condensate Field under **<\$5M**, achieving 10 MMSCFD production & \$15–20M annual revenue, managed multiple oil & gas fields at various stages.
- Devised development plans for several tight gas fields such as Naushahro Feroz, Nusrat , Hub, Morghand, Talagang etc. Involved in drilling (from planning to execution) of **89 deg horizontal** as well as hi-angle wells including fracking in these fields.

Lead Reservoir Engineer – Shale Gas Development Pilot Project (Task Led by Govt. Of Pakistan)

- **Led \$400M shale gas development pilot project as lead RE**, conducting feasibility studies, designed pilot wells etc.
- Worked with regulatory bodies to propose tax & royalty structures for shale gas pricing and investment frameworks.

Senior Reservoir Engineer – Asset Management & Production Optimization

- Managed Hala & Gambat South assets as an RE, overseeing field development, budget planning & reservoir surveillance (PLT/PSPs, BHP surveys etc)
- Optimized Adam West X-1 Field, preventing reserves migration and **saving \$20–30M** over field life; **reassessed GIIP, doubling estimates** & reshaping development strategy.
- Recommended & facilitated PPL's acquisition of Rehmat Gas Plant (70 MMSCFD), reducing EPCC time & accelerating monetization of Gambat South fields.
- Plan & supervise well interventions jobs at wellsite including but not limited to BHP/SGS, MDT, Testing, Water Shut-Off, PLTs Stimulation etc.

Additional Roles & Contributions: Member, Technical & Commercial Peer Review/ Gate Committee, Member acquisition & divestiture (A&D) committee. Involved in evaluation of various assets in Pakistan & Middle East. Carry out all technical due diligence as RE & involved in legal /commercial deliberations.

2. Application (Artificial Lift) Engineer

Weatherford , Houston Texas , USA
2015- 2015

- Evaluate well performance & find optimum ALS option (ESP, Jet Pump, Gas Lift etc) for the client. Gotten in-depth training in designing various ALS option using Weatherford proprietary softwares.
- Execute jobs at wellsite across Texas.

3. Research Fellow

Mewbourne School of Petroleum & Geological Engineering, University of Oklahoma, USA
2013-2015

- Conducted pioneering research on ‘Characterizing Multi-Phase Transient Linear Flow in Hydraulically Fractured Wells in Liquids-Rich Shale Reservoirs (Eagle Ford), SPE-179963-MS’.
- Collaborated with industry legends from OU, Devon Energy & Chevron USA.

4. Petroleum / Reservoir Engineer

KUFPEC (A subsidiary of Kuwait Petroleum Corporation - KPC)
2012-2013

- Worked on KUFEC’s largest JV-operated portfolio in Pakistan, including fields like Kadanwari (ENI), Bhit (ENI), Badhra (ENI), Qadirpur (OGDCL), & Zamzama (BHP Billiton).
- Provided technical support in field development & production optimization. Supervised hydraulic fracking campaign of Kadanwari tight gas reservoirs, involved in frac designing, flow back analysis etc.
- Contributed to the acquisition & divesture (A&D) of operated blocks, corporate planning activities, including budgets & reporting. Involved in extensive reporting & management presentation to HO.

5. Petroleum & Assistant Drilling Engineer

New Horizon Exploration & Production Limited (NHEPL), Karachi, Pakistan
2009-2012

- Involved in technical & economic evaluation of NHEPL assets in **Pakistan & Tajikistan**. Prepare development plans, involved in drilling, completion & testing planning. Prepare FYP business plan, budget etc.
- Involved in acquisition & divesture (A&D) activities. Data room participation & review, estimate reserves, perform forecasting & carry out economic & risk assessment analysis etc.
- Contributed to the gas discovery in the Jherruck Block.
- Joined NHEPL as assistant drilling engineer involved in preparing well design, LLI procurements & drilling operations.

6. Summer Intern

- BHP Billiton of Australia, (2008)
- New Horizon E&P Limited (2007)

Computer Skills

- **Petroleum Softwares:** Proficient in Petrel, IPM/PETEX (Prosper, GAP, MBAL), KAPPA (Saphire & Topaz), OFM, PEEP, IHS Harmony Fekete, PEEP, DTK & VOLTS/ Aries/PhD Win/Combo Curve, Fraccade , Ghofer & more.
 - **Data Analytics Programming:** SPSS, Intermediate knowledge in MATLAB, VB, & R Code.
 - **Operating Systems:** Experienced with all Windows versions & project management tools.
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Education

1. **Master of Science in Petroleum Engineering**, University of Oklahoma, USA (2015) – GPA: 4.0/4.0, Distinguished Graduate.

2. **Bachelor of Engineering in Petroleum & Natural Gas Engineering**, Mehran University, Pakistan (2008) – CGPA: 4.0/4.0, Double Gold Medalist.
 3. **Bachelor of Laws**, University of London, United Kingdom (UK), (2020).
 4. **Master of Arts in Economics**, SALU Khairpur, Pakistan (2012) – 1st Division.
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Training & Certifications

- +100 technical, business, law, software, & soft skills training programs conducted by top companies & experts across various countries, including the USA.
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Key Achievements & Recognition

- *You Are a Star Award*, PPL (2015, 2018) for outstanding performance.
 - *Individual Recognition Award* for saving \$43MMUSD in a key project.
 - *SPE Distinguished Professional Speaker* (2017-2018).
 - *Author* of several published research papers in SPE/Other Journals etc. Reviewer for Elsevier – Petroleum & Natural Gas Engineering Journal
 - *Expert Board of Studies* for B.E (Petroleum) for UET Mehran Jamshoro
 - *Distinguished Graduate Student Award* by MPGE OU, USA for 2015 & 2016
 - *Double Gold Medalist* in B.E. Petroleum from UET Mehran.
 - Awarded numerous scholarships for academic excellence across the USA, KSA, and Australia.
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Professional Associations

- US Fulbright Scholar & *Alumni US Department of State*
 - Active member of SPE (International & Abu Dhabi , Pakistan Chapters) , holding multiple roles such as Reviewer, Committee Member, Ascriber, Treasurer, Technical Paper Reviewer, Diversity & Inclusion Committee Member etc.
 - Alumni of Pakistan Fulbright Association, University of Oklahoma, UET Mehran, & University of London.
 - Registered Engineer with the Engineering Council of Pakistan.
 - *Registered Lawyer* at Sindh Bar Council of Pakistan.
 - US-Aid Led Fulbright Program: Served as Interview & Review committee member for FLTA, MS & PHD Fulbright Scholarships by USEFP.
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Publications

- SPE-195666-MS, SPE-185303-MS, SPE-186204-MS, SPE-185309-MS, SPE-183500- MSSPE-179963-MS, SPE-176075-MS, SPE-181130-MS, SPE-174716-MS,
<https://doi.org/10.1007/s12517-021-08766-w>