Michael Davis

Petroleum Engineer – Senior Drilling Engineer

Experience

Education B.S. Petroleum Engineering University of Texas-Austin

Drill Science Corporation Consulting
January 1999 – Present (19 years)
Petroleum Engineering and Project Management for Drilling, Completion, and Production Production.

Drilling Engineering in house and onsite supervision. Completion Engineering in house and onsite supervision. Well Design based on drilling and reservoir geomechanics. Cost estimation (AFE), Performance controls, Annual Budgets. Researching and implementing new technologies. Designing well construction design and operations software. Developing emerging technologies. Regulatory compliance. Team building and project management.

Companies served include:

Activa Resources, ADMA, Aminex Oil & Gas, Apache Corporation, AFE Oil & Gas, British Petroleum, Choice Exploration, Dietswell, El Paso Exploration & Production, EPI, IP Petroleum, Kerr McGee, The McAlester Fuel Company, Mission Resources, Noble Energy, Occidental Petroleum, Pogo Producing, Signa Engineering, Subsurface Consultants, Tech Power Controls, Total Energy Services, Worldwide Deepwater Services.

Senior Drilling Engineer

Cliffs Drilling Company
August 1992 – December 1998 (6 years 5 months)
Turnkey Drill HTHP wells including Deepwater, Horizontal, International. Worked on the second round of offshore turnkey drilling projects awarded by PEMEX.

Drilling Engineer

Triton Engineering Services

May 1990 – July 1992 (2 years 3 months)

Design and implement turnkey drilling projects completing them within competitive timeframe and cost budget. Drilled turnkey offshore wells for PEMEX that was the first offshore turnkey projects ever awarded to a US company. Projects included deepwater drilling and ultra deep HTHP drilling. Worked on drilling projects in Russia and deepwater drillship drilling in Southeast Asia and West Africa.

Drilling Engineering Intern

Chevron

May 1989 – September 1989 (5 months)

Worked offshore in deepwater Santa Barbara Channel.
Supervised two rigs in Huntington Beach.
Authored document on cost savings on operations operated from the Ventura, CA office.

Reservoir Engineering Intern

Standard Alaska Production Company

May 1988 – September 1988 (5 months)

Researched and analyzed well tests for the Kuparak field in the Artic of the North Slope.
Built a database of useful parameters derived from well test analysis.
Utilized self-created database of skin factors derived from calculations performed on well test data to high grade prospects for workovers resulting in increased future production.
Analyzed software needs of the reservoir and production group for a tool to accomplish needed tasks and presented findings to management for implementation.

Administrative Chairperson SPE Human Factors Committee

SPE
2016 – 2017 (1 year)
Plan for the way forward and current operational issues.

Board Member of the SPE Online Communities Committee

SPE
2012 – 2015 (3 years)
Plan for the way forward and current operational issues.

Technical Editor for the SPE Peer Review Committee.

December 2007 – Present (11 years)

Special Operation Subject Matter Expert – 2015 IADC Drilling Manual 12th Ed

Skills and Abilities Developed

Diligent, discerning, commensurate, balanced, easy going, inspired in teamwork process focused, operations oriented engineer with rig site supervision experience in HTHP drilling on land and water exploration wells. Range of experience: deepwater, jackup, platform, barge, & land, exploratory HTHP gas wells, extended reach (ERD), horizontal & troublesome drilling environments, microholes, narrow drilling windows, passive & proactive MPD & UBD techniques, well intercept interventions, re-entries, sub-salt, & ultra deep drilling. Also expertise in: drilling geomechanics, & chemistry techniques for managing HTHPHA gas wells (HTHP plus high acid gas “sour gas” wells) & other challenging environments, HTHP well control, trouble shooting problem geological areas, w/diligent research, engineering fundamentals & adaptive plans that work. Formal risk analysis & mgt through hi tech solutions implemented by well construction teams empowered w/well conceived, detail oriented strategies, tactics, plans & leadership. Have demonstrated clear understanding and competence in principles of well design involving process and order best practices. Advise engineers across teams & groups on casing setting depth & design & drillstring design for HTHP & ERD wells, building consensus on complex issues by diligent attention to details & fostering inclusive, formal & informal peer reviews, & overcoming objections by fact finding & "influencing" soft skills. Excellent work ethic &

interpersonal skills, including poise, tact & diplomacy & able to handle sensitive & confidential situations, present ideas & projects & work in a fast paced environment & balance multiple competing tasks & demands, & assess & manage priorities.

Skilled in pore pressure prediction using petro-physical methods, using shallow hazards in well planning & site assessments for MODU's, deepwater casing design & installation, WellCat, StressCheck, TDAS, APB analysis & mitigation, subsea wellheads, landing string design, rotary steerable & concentric reaming system applications. Diligent in processing paperwork and regulatory compliance. Thorough understanding of 30CFR250 B, C, D, E & F, API Docs relative to well planning: RP 2SK, 10B2, B3, B4, B5, B6 D2, 53, 65, 79, 90, 96. Spec 6A, 10D, 16A, 16D, benchmarking systems, nodal analysis software to calculate WCD's, & all new permitting processes for GOM deepwater drilling.

Specialties: Creating and implementing plans that work even in time and space constraints. Solving complex, problem wells, with hi tech/low stress solutions with morale in teamwork. HTHP ultra deep exploratory drilling. Drilling operations in harsh environments like narrow drilling windows, ballooning, deviation issues, abnormal pressure, & wildcats on time and budget using conventional or MPD techniques. Expertise in casing setting depth selection. Ultra deepwater drilling planning & operations and obtaining permits in new GOM regulatory processes. Competency, People skills and ethics to get complex and difficult things done safely, quickly, diligently and right, as well as the routine and easy.

Technical Papers written

Drilling Geomechanics - Pre-Drill Fracture Centroid Perspective Is Key To Spot Casing Setting Depths and Trajectories At High Risk For Ballooning

Considerations for a Successful Wellbore Trajectory Design

Practices for HTHP Gas Well Production Casing Cementing

Practices for Avoiding Differential Sticking While Drilling Depleted Sands

Practices in Selecting Casing Setting Depths and Common Design Pitfalls

Change Enables Better Fracture Pressure Prediction Via Only Seismic Data

Geomechanics - Pre-Drill Fracture Centroid Perspective Is Key To Design Pressure Balanced Open Hole Intervals And Avoid Costly Imbalances

Casing Design Process Best Practices – Order and Disorders to Avoid

Engineering Editorial Review Drilling Subject Matter Expert

IADC Drilling Manual, 12th Edition Special Operations Editor

Personal

Board Member of Local Charity in Houston. Home owner board member. Father of four adult children. Mentor to multiple SPE young engineers.