



BRUINGTON ENGINEERING, LLC

Steven L. Bruington, P.E.

EDUCATION

Cypress-Fairbanks High School, 1972
Texas A&M University, 1972 - 1976
Bachelor of Science Degree, Petroleum Engineering.

EXPERIENCE

September 1986 – Present

BRUINGTON ENGINEERING, L.C. /LTD. - President / Partner

Company provides in house engineering and well site consulting services.

- The services provided include but are not limited to:
 - onsite supervision of drilling, completion and workover operations; snubbing operations; pipeline and facility installation; CO₂ foam frac jobs; well testing; inspection of outside operated properties; supervision of gaugers
- Project depths have ranged from 500 to 17,600 feet, bottom hole pressures exceeding 15,000 psi, bottom hole temperatures in excess of 400°F and CO₂ concentrations exceeding 10%.
- Responsible for the preparation of drilling, completions, and workover procedures, cost estimates, reserve and property evaluations, estate evaluations, pressure transient analysis, filing of Railroad Commission forms, casing designs, bid specifications and preparation of drilling programs.
- Experienced in the management of a multi-rig Eagle Ford drilling and completions operation. This includes well design, drilling program construction, and well operations. Served as interim drilling and completions manager during transition period between operators.
- Experience in well design for frac operations, completion program design and execution.
- Well versed in all aspects of open and cased hole logging, acid washes and fishing MWD tools using coiled tubing.
- Experienced in the drilling and completion of wells in the Wilcox, Frio, Yegua, Vicksburg, Austin Chalk, Edwards, Miocene, Hockley, Olmos, Catahoula, Buda, Queen City, Ellenberger, Miss and Eagle Ford formations.

- Supervised the planning and drilling of short radius lateral wells in the Edwards Limestone
- Supervised the drilling and completion of more than 100 horizontal wells. Many of these wells were drilled while producing 125 barrels of oil per hour with 400-500 psig backpressure.
- Perform services as expert witness.
- International experience includes:
 - Served as the United Nations technical representative to the Oil and Natural Gas Commission of India for the preparation of a feasibility study regarding the drilling and completion of horizontal wells in unconsolidated sandstone reservoirs
 - Prepared well designs for 4500 meter wells in Bolivia.
- Prepared tender offers and analyzed responses for drilling of wells in Tunisia.
- Selected as technical advisor to chapter 7 federal bankruptcy trustee.
- Partner in Bruington Operating Company L.L.C., which is actively engaged in contract operating of oil and gas wells. The company was founded to manage oil and gas properties with a minimum amount of cost to the joint interest owner.

January 1986 - September 1986

CROSSROADS PETROLEUM CONSULTANTS, INC. - Vice President of Operations
Onsite supervision of drilling, completion, and workover operations. Prepared cost estimates, completion procedures, drilling programs and property evaluations.

November 1979 - January 1986

BAGNALL & BARBER, INC. (consulting natural gas and petroleum engineers) - Petroleum Engineer. Onsite supervision of drilling, completion, and workover operations on wells ranging in depth from 2,000 to 15,000 feet. Activities supervised included daily workover, completion and drilling operations, running and cementing of casing and liners, monitoring of pore pressures and adjusting mud weights accordingly, drill string design, selection of solids control equipment, logging and coring operations, perforating, fishing, drill stem tests, gravel packing, 4-point potentials, casing designs, stimulation jobs, diamond coring, bit nozzle selection. Office work included reserve and property evaluations, calculation of absolute open flow potentials, Railroad Commission completion forms, preparation of workover and drilling procedures, preparation of cost estimates, and supervision of up to 8 field personnel.

May 1976 - November 1979

GETTY OIL COMPANY - Associate, Junior Petroleum Engineer and Petroleum Engineer
Analyzed pressure buildup and drawdown tests, constructed P/Z versus cumulative production curves. In charge of engineering and profitability of over 60 oil and gas wells.

Responsibilities included recompletion procedures with economics, log calculations, and payout calculations. Wrote several drilling programs for wells ranging in depth from 10,000 to 14,000 feet. Made calculations to size reciprocating gas compressors to fit specific conditions.

PROFESSIONAL ORGANIZATIONS

Society of Petroleum Engineers, 1975 - present
American Association of Drilling Engineers – San Antonio Chapter
San Antonio Petroleum Club - Vice President, 1999 - 2000, President 2000 - 2001
American Petroleum Institute
Registered Professional Engineer in Texas (Number 55,514)
Second Vice President - Balcones Section of Society of Petroleum Engineers 1997, 1998
Member of Balcones Energy Library, Inc.
Scholarship Chairman - Balcones Section of Society of Petroleum Engineers 1997, 1998, 1999, and 2000
Finalist for North San Antonio Chamber of Commerce 2003 Small Business Leader of the Year Award
The Alternative Board (TAB) 2000 - 2006

INDUSTRY TRAINING AND EDUCATION

H₂S Certified
Proficient in Microsoft Office, Excel
Cathodic Protection and Corrosion Seminar. Getty Oil Company, 1976
Customer Mud School. IMCO Services, 1977
Drilling Seminar, Hughes Tool Company, 1977
Compressor Seminar, Cooper Industries, 1977
Open Hole Log Interpretation, Schlumberger, 1977
Blowout Prevention School, University of Oklahoma, 1977
Well Log Interpretation, Douglas W. Hilchie, 1977
Halliburton Services Customer School, 1977
Drilling Practices, Preston Moore, 1978
Directional Drilling and Fishing Tool Seminar, Wilson Industries, 1979
Enhanced Oil Recovery Seminar, Getty Oil Company, 1979
Technical Writing Seminar, Getty Oil Company, 1979
Workover and Completion School, Rike Services, 1979
M.M.S. Basic Well Control School, University of Houston at Victoria, Petroleum Training Institute, 1983, 1989, and 1993

M.M.S. Refresher Well Control School, UHVC-PTI, 1984, 1985, 1986, 1990, 1991, 1992, 1994, 1995, and 1996
SOR Stimulation Seminar, Dowell-Schlumberger, 1985
Core Analysis, Seismic and Logging Seminar, Western Atlas International, 1987
Smith International Horizontal Drilling Seminar, 1990
Developing Area Specific Waste Management Plans for Exploration and Production Operations, API, 1993
Economical Fracture Optimization for 3-D Models, Integrated Energy Services, Inc., 1995
Tubular Design Technology Training, 2003
Hydraulic Fracturing Technology and Case Studies in Tight Gas Sands and Shales, 2007
Shale Development Technology Workshop, Halliburton 2011
San Antonio Association of Petroleum Landmen Mid-Winter Seminar, 2012