PROFESSIONAL RESUME

T. B. O'Brien

PERSONAL DATA

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EDUCATIONAL BACKGROUND

High School	-	Evergreen, Louisiana
College	-	B. S. Chemical Engineering 1948 Louisiana State University

PROFESSIONAL STATUS

Registered Professional Engineer - Chemical and Petroleum, since 1953 - Louisiana Registered Professional Engineer, since 1976 - Texas

PROFESSIONAL EXPERIENCE

October, 1992 - Named Engineer of the Year, Society of Petroleum Engineers July 1991 - Activities continued as in 1988. Elected to Society of Petroleum Engineers Permian Basin Section Hall of Fame. Company is coordinating fire fighting operation for Kuwait Oil Company. Personally consulting with KOC and fire fighting companies on management problems and fire fighting techniques.

February 1988 - Continued consulting engineering activities with increasing emphasis on consultation with management of domestic and foreign oil companies. Designed and provided engineering and operational assistance on several 25,000 foot Anadarako Basin Wells. Analyzed well problems and gave operational advice to operating companies and drilling contractors. Entered into a joint venture with a drilling contractor to drill 15,000 foot and deeper wells on turnkey contracts. Provided operational aid to a mining company and drilling contractor on use of oil

YATES PETROLEUM CORP. BEFORE THE COMMISSION NMOCD CASE NOS. 10446-10449 DATE: 09/09/92 DE NOVO EXHIBIT NO. 67 field drilling rigs and techniques in drilling deep hard rock core holes. Provided on site management and operational supervision of wells with significant problems. Provided aid to operators, contractors, individuals, manufacturers, service companies and their attorneys when involved in litigation and, when necessary, gave expert testimony in the realm of oil field operations.

January 1982 - Formed O'Brien Goins Ritter & Associates and OGR Operating Company, Inc. to explore, develop and operate oil and gas properties. (In 1987 changes to O'Brien Goins Simpson Exploration Company and OGS Operating Company, Inc.)

> Continued engineering consulting activities with increasing emphasis on expert testimony and consultation with management of national oil companies.

May 1977 - Consulting Drilling Engineer

Formed O'Brien Goins Engineering, Inc. with W. C. Goins, Jr. (In 1978 changed to O'Brien Goins Simpson, Inc.) Our primary activity is consulting with oil company management on the full range of drilling activity including well planning, drilling and completion problems. While our work involved all types of wells throughout the U.S. and a number of other countries, the majority of our effort in concentrated on difficult, usually deep wells, wells presenting unique problems, blowout prevention and control and critiquing drilling operations.

In June 1980 formed O'Brien Goins Simpson & Associates, Inc. and OGE Drilling, Inc. OGE Drilling provides well planning, operation supervision and management of oil and gas wells specializing in deep, high pressured sour gas wells. O'Brien Goins Simpson & Associates (OGS&A) provides technical consultants to the drilling industry both domestic and foreign, specializing in deep drilling technology, drilling fluids, blowout prevention, cementing, tubular good problems, design and management of blowout relief wells. OGS&A provides several schools and symposiums on a number of advanced drilling engineering topics.

Appeared as expert witness in regulatory hearing in Texas, New Mexico, Oklahoma and Utah. Gave testimony as expert witness in both state and federal court. Arbitrated disputes between operators and between operators and drilling contractors.

January 1976 - Consulting Drilling Engineer

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> As an independent engineer consulted with several independent operators and small companies on drilling and completion of deep oil and gas wells. Supervised drilling of several deep wells. Set up an operating department for a small gas company. Was an expert witness in several legal matters. Represented an operator at an USGS hearing in connection with an offshore blowout. Acted as consultant to a major drilling contractor on matters related to extending drill pipe life including corrosion problems, thread lubricants and handling techniques.

> Was distinguished lecturer 1976-1977 for Society of Petroleum Engineers - Topic: New Developments in Deep Drilling Techniques.

July 1967 - Operations Manager for Roden Oil Company (a West Texas

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Independent). In late 1969, Roden was merged into Houston Natural Gas Corporation and became HNG Oil Corporation. Was Vice-President - Drilling and Production in charge of all field operations and associated administrative activated. Initially supervised two people and operated three large drilling rigs. At end of period supervised 100 people and operated as many as fourteen rigs in West Texas, Texas Gulf Coast, Oklahoma and New Mexico. During period HNG Oil Company increased reserves value from \$4,000,000 to over \$300,000,000. Drilled more than 500 wells of which more than 50 were deeper than 17,000'.

Primary responsibilities were planning and supervision of drilling activities with particular emphasis on unique well conditions; well completions an establishment of organization both operational and administrative.

Additionally coordinated establishment of computer systems for production accounting and reporting, cost accounting, material handling system and a system coordinating this data with Financial Accounting.

During period introduced and developed a number of innovations in deep drilling related to drilling fluids systems, air drilling, casing programs, well control, underbalanced drilling, directional drilling, crooked hole problems and well completion equipment.

July 1964 - District Drilling Engineer Houston District Gulf Oil Corporation (Houston District was comprised of Southeast half of Texas and offshore Texas).

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Was in direct charge of Gulf's drilling operation in that area. Drilling 30-50 wells per year ranging in depth from 3500' to 17000' both onshore and offshore.

For a four month period was assigned to Gulf Ethiopia to plan and initiate a drilling operation in the Red Sea. Responsibilities included planning the well, mobilizing rig and material and arranging importation and local handling of rig, material and expatriate personnel both physically and in accordance with requirements of governmental authorities.

Duties included lectures in Gulf's school for drilling engineers on tubular goods design.

Ran one of the first sea bottom hanging systems for casing.

January 1958 - Staff Chemist - Later Staff Drilling Engineer Houston July 1964 Technical Laboratory Gulf Oil Corporation Head Drilling Unit supervised two engineers and two technicians in drilling mud and cement laboratory. Set up and policed specifications for drilling mud materials. Designed drilling fluids for specialized drilling and workover situations. Evaluated numerous mud systems and mud products for use in Gulf's operations. Was member of API Standardization Committee on Drilling Mud.

> Tested cement composition for utility in oil field application. Participated in development of low fluid loss cement compositions and supervised their employment in primary and remedial cement applications.

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Made numerous engineering studies relative to drilling techniques and operations. Among those were: Selection of drilling rig equipment optimum economic operation, optimization of drilling parameters, development of a recommended tubular goods design practice, field economic evaluation of hydraulics as a drilling parameter.

Developed jointly with W. C. Goins, Jr, the basic method for control of threatened blowouts presently accepted as the industry standard. Was chairman of the Joint API-AIDC committee that developed the first blowout simulator used in blowout control schools. Developed Gulf's casing design manual.

Engaged in numerous filed operations both domestic and foreign. Those operations included the introduction of new techniques, supervision of operations for cost reduction, blowout control, fishing jobs, studies of particular problems regarding cements and cementing techniques, drilling muds, air drilling.

Expanded and updated drilling engineering school. Lectures to school on a number of drilling related topics.

Taught in several industry schools.

Consulted with operational elements of Gulf on well planning, rig selection, optimization of drilling parameters. Critiqued drilling operations.

These activities necessitated work in 25 of the United Stated

and 13 other countries.

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Was a member of the APT Standard Committee on tubular goods, was chairman of several API study groups related to drilling and was chairman of API Drilling and Production Practice Committee.

July 1954 - Drilling Engineer New Orleans (District) Gulf Oil Corporation January 1958 - Was responsible for repair and maintenance of six company owned drilling rigs. Prepared cost estimated for drilling budget, selected drilling rigs, took drilling bids for contract rigs, designed well programs including casing and mud programs, specified tubular goods to be purchased for a 100-200 well per year operation, maintained cost control records. Supervised directly operation of wells both onshore and offshore - these being wells with some unusual conditions or in trouble.

> Was a member of four man task force that drilled that drilled an 18000 foot well in an area where several previous attempts had failed.

> Made engineering studies of drilling parameters, evaluated drilling equipment, made economic studies of drilling operations.

Taught casing design in Gulf's drilling school.

January 1953 - Drilling Engineer Gulf Oil Corporation

July 1953 Was assigned to an offshore equipment construction group. Responsible for design and installation of mud system and the

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drilling water and ships water system on two drilling tenders. Designed and installed one of the earliest bulk mud and cement handling systems.

Was involved in design of one of the earliest jack-up rigs for offshore operations. Responsible for sizing and selection of much of the drilling equipment an for its arrangement aboard the rig.

October and - Detached for special assignment to observe drilling operations November 1953 of Mene Grande in Eastern Venezuela to evaluate operations there for possible application on the U.S. Gulf Coast and to critique certain of their operations.

June 1952 - District Drilling Mud Engineer New Orleans

January 1953 District Gulf Oil Corporation Was responsible for planning and operation of drilling mud program for Gulf's South Louisiana onshore and offshore operations. Ran the first successful sea water muds. Supervised field drilling operations to improve operating techniques and overcome drilling problems.

January 1952 - Petroleum Engineer Lafayette Area Gulf Oil Corporation June 1952 Tested oil and gas wells, prepared reports to regulatory bodies, made well studies for recompletions and workovers, designed and installed production facilities. Supervised well completion and workover operations, relieved drill foreman.

January 1949 - Drilling Mud Engineer South Louisiana Zone Gulf Oil January 1952 Corporation. Did drilling mud and drilling engineering work in the U.S. Gulf Coast area. Mainly field work on mud trouble

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jobs. Relieved drill foreman. Did engineering studies evaluating rig efficiency and rig equipment.

November 1948 - Drilling Mud Engineer Gulf Oil Corporation

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January 1949 Attended Gulf's drilling mud school at their Houston Chemical Laboratory.

June 1948 - Roughneck-Derrickman Gulf Oil Corporation

November 1948 Worked on Gulf's Rig 56 at West Bay, Louisiana.

September 1947 - Chief Chemist St. Mary's Sugar Co-op

January 1948 Set up process control laboratory. Supervised three bench chemists and six helpers. Responsible for process control and performed special analyses.

June 1947 - Paymaster St. Mary's Sugar Co-op

September 1947 Worked as Paymaster, kept payroll records for construction of sugar mill.

T. B. O'Brien

Publications

"Using Sea Water For Drilling Muds,"

World Oil, May 1955, Volume 140, No. 6 (Also in 1955 API Drilling and Production Practice)

"How We Can Improve Drilling Operations," Oil & Gas Journal, June 22, 1959, Vol. 57, No. 26

"How to Control Blowouts,"

World Oil, May, June, July, 1960, Three parts

"How To Insure Against Blowouts," <u>Oil & Gas Journal</u>, June 20, 22, 27, 1960, Three parts

"What To Do When Well Kicks While Making a Trip," Oil & Gas Journal, July 4, 1960

"Detecting and Controlling Threatened Blowouts,"

<u>Oil & Gas Journal</u>, Oct. 15, 1962, Vol., 60, No. 42

"The Role of Filtration in Cement Squeezing," API Drilling and Production Practice 1961.

"Are Tubular Strings Being Designed Properly?," Two Parts World Oil, November and December 1961, Volume 153, No. 6 and No. 7

"A New Approach to Tubular String Design," - Four parts <u>World Oil</u>, November and December 1961, January and February 1962 "New Bit Designs Drill Hard Formations Faster,"

World Oil, June 1970

"Deep Duals Simplified,"

SPE #3904, 1972 Deep Drilling Symposium, Amarillo, Texas.

"Mud Separators Are Vital to Effective Well Control," World Oil, February 1973

"What It Takes to Drill Ultra-Deep Wells Successfully," World Oil, August 1973, Vol., 177, No. 2

"People - The Drilling Problem,"

Society of Petroleum Engineers of AIME, Paper #5167, 1974.

"Drilling,"

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Oil & Gas Journal, Vol. 72, No. 8, 1974

"Drilling Costs: A Current Appraisal of a Major Problem," World Oil, October 1976, Vol. 183, No. 5

"Poor Performance (Incapable people and unused technology add up to poor quality of operation),"

Drilling - the wellsite publication, February 1977, Vol., 38, No. 4

"Crooked Hole Problems in Deep Wells,"

Petroleum Engineer, March 1977, Vol., 49, No. 3

"Relaxed Fluid Loss Controls on Invert Muds Increases ROP,"

World Oil, August 1977, Vol., 185, No. 2

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"Invert Mud End Excessive Drag,"

Drilling DEW, the wellsite publication, April 1978, Vol. 39, No. 6

"Invert Mud Cut Costs on Deep Delaware Basin,"

Southwestern Petroleum Short Course (Texas Tech) April 1978.

"Blowouts: Why Some Happen and What To Do About It,"

World Oil, October 1978, Vol., 187, No. 5.

"Deep Drilling Problems - Some Answers and Possible Solutions," SPE #7850, 1979 Deep Drilling Symposium, Amarillo, Texas.

"Handling Gas in an Oil Mud Takes Special Precautions," <u>World Oil</u>, January 1981, Vol., 192, No. 1.

"Why Some Casing Failures Happen," <u>World Oil</u>, October 1984, pp. 60-63.

"Hole Cleaning Some Field Results,"

Society of Petroleum Engineers of AIME Paper #13442, SPE-IDAC Drilling Conference, New Orleans, March 1985.

"Hang Casing Right and Reduce Failures,"

Society of Petroleum Engineers of AIME Paper #16105, 1986.

"Some Turnkey Contract Considerations," 1989 Thirty-Sixth Southwestern Petroleum Short Course, April 17, 1989.