
APPENDIX C

RESUME OF ADAM T. (TED) BOURGOYNE, JR., PH.D., P.E. (LA # 15776)

President

Bourgoyne Enterprises, Inc.

Professor Emeritus of Petroleum Engineering

Louisiana State University (since 1999)

Member of Faculty of Petroleum Engineering

Louisiana State University (since 1971)

Registered Professional Engineer (Petroleum)

in Louisiana, No. 15776.

6006 Boone Drive

Baton Rouge, LA 70808-5005

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EDUCATION

Louisiana State University

B. S. in Petroleum Engineering, Cum Laude, 1966

M. S. in Petroleum Engineering, 1967

Inducted into Engineering Hall of Distinction, 2006

University of Texas at Austin

Ph.D. in Petroleum Engineering, 1969

Recognized as Distinguished Engineering Graduate, 2001

ACADEMIC EXPERIENCE

Current Title:

Professor Emeritus of Petroleum Engineering
(Retired December, 1999)

Administrative Assignments:

Dean of the College of Engineering
January, 1997 to January, 2000
Director of Petroleum Engineering Research and Technology Transfer Laboratory
May 1987 – June 1990
Acting Dean of the College of Engineering
December 1985 – May 1987
Chairman of Petroleum Engineering Department
May 1977 – July 1983

INDUSTRIAL EXPERIENCE PRIOR TO ACADEMIC SERVICE

Continental Oil Company – Houston, TX (1969–70)

Senior Systems Engineer in Production Engineering Services Group working on computer applications in drilling and production. Work included drilling data acquisition, abnormal pressure detection, optimization of drilling hydraulics, optimization of bit weight and rotary speed, multiphase pipeline networks, design of submersible electric pump installations.

Continental Oil Research Laboratory – Ponca City, OK (Summer, 1968)

Performed experimental laboratory evaluation of new surfactant system for enhanced oil recovery

Chevron Oil Research Laboratory – La Habra, CA (Summer, 1967)

Reservoir Engineer assisting with reservoir simulation of fields in Saudi Arabia and development of new computer programs for analysis of drill-stem tests and well interference tests.

Texaco, Inc. – Morgan City, LA (Summer, 1966)

Assistant Drilling Engineer involved with well planning and drilling optimization for offshore area.

Mobil Oil Company – Morgan City, LA (Summer, 1965)

Assistant Production Engineer involved with planning and economic justification of well workover operations on offshore platforms.

Mobil Oil Company – Cameron, LA (Summer, 1964)

Roustabout involved with installation of automation equipment on offshore production platforms.

Mobil Oil Company – Opelousas, LA (Summer, 1963)

Roustabout in field produced by gas cycling method.

RECENT CONSULTING ACTIVITIES

Pennington Oil and Gas Company Co. – 2001-present

Consultation on drilling, production, and reservoir engineering matters.

Diamond Offshore Drilling, Incorporated - 2000-2003

Well Control training activities.

Shell Offshore/DeepStar - 1997-1999

Computer simulations of deepwater well control operations.

Wild Well Control, Inc. – 1993-2000

Computer simulations of alternative well control operations.

Weatherford – 1993-2001

Research and development advisor for rotating control head applications

PROFESSIONAL SOCIETIES AND ACTIVITIES

Society of Petroleum Engineers (SPE)

Chairman, Twenty-Five Year/Century Club Committee, 1996

Chairman, Drilling Engineering Award Selection Committee, 1996–98

Chairman, Reprint Series Committee, 1996-98

Board of Directors, 1984–87

Chairman, Manpower Committee, 1981–82

Education and Accreditation Committee, 1980–83

Pass Point Evaluation Committee for Professional Engineering Exam, 1996

Distinguished Lecturer, 1997

American Petroleum Institute

Committee concerning the determination of formation pore pressures and fracture gradients

American Association of Drilling Engineers

Charter Member, Houston Chapter

Accreditation Board for Engineering and Technology (ABET)

Adhoc committee, ABET, 1983-1990

Advisory committee, AIME Engineering Accreditation Commission Member, 1983–86

Minerals Management Service

Conducted Annual Well Control Research Workshops, 1983-1999

Three U.S. Patents related to Well Drilling**Sigma Xi Scientific Research Society, LSU Chapter**

OTA-US Congress (Advisor on Technology for Deep Water Oil and Gas Development, 1984–85)

National Bureau of Standards

Chaired Workshop Panel on Use of Risk Analysis in Offshore Oil and Gas Operation, Gaithersburg, Maryland, March 1984

National Institute of Standards and Technology

Chaired Workshop Session on Reliability of Offshore Operations, Gaithersburg, Maryland, March 20–22, 1991

International Association of Drilling Contractors (IADC)

Chairman, Committee for Well Control Instructor Certification Standards

Member of Steering Committee for development of IADC Deepwater Well Control Guidelines, 1998

International Well Control Symposium

Chairman, Symposium co-sponsored by US Minerals Management Service, UK Department of Energy, American Association of Drilling Engineers, and International Association of Drilling Contractors, Baton Rouge, LA, Nov. 27–29, 1989.

American Association of Drilling Engineers

Session Chairman, Deepwater Drilling Forum, Lafayette, LA, Feb. 15, 1990.

Chairman, Technical Panel, Advanced Well Control Forum, New Orleans, LA, April 3, 1991.

The Oilman's Editorial

Advisory Board member, 1993-95

Elsevier Science Publishing

Associate Editor, Journal of Petroleum Science and Engineering, 1989–1995.

LSU Workshop on Horizontal Drilling in Louisiana

Chairman, New Orleans, LA, June 4–5, 1991.

American Filtration Society

Session Chairman, Fall Meeting, Baton Rouge, October 29–30, 1990

Petroleum Engineer International

Advisory Board, 1995-96

Technical Advice Working Group to Integrated Ocean Drilling Program

Chairman, 2000-2001

HONORARY SOCIETIES AND AWARDS

Distinguished Lecturer

selected 1997

topic -- Well Control Aspects of Underbalanced Drilling

Foreign Member of the Russian Academy of Natural Sciences

elected 1996

Kapitsa Gold Medal of Honor (Russian)

citation - "For outstanding contributions to the field of drilling engineering"

Society of Petroleum Engineers Distinguished Member

selected 1990

Charter Member of American Association of Drilling Engineers

selected 1989, No. 0159

Society of Petroleum Engineers Drilling Engineering Award

selected for 1988

citation – "For distinguished contributions to petroleum engineering in the area of drilling technology"

Pi Epsilon Tau National Petroleum Engineering Honor Society Diploma of Honor

Selected 1988,

citation – "For outstanding contributions to the petroleum industry"

**Society of Petroleum Engineers Distinguished Achievement Award
for Petroleum Engineering Faculty, selected 1981**

Tau Beta Pi, member

Pi Epsilon Tau, member

Outstanding Alumnus of Redemptorist High School, selected 1989

Citation for Distinguished Service

Louisiana House of Representatives, passed 2000

Distinguished Engineering Graduate of University of Texas at Austin, selected 2001

Albert Einstein Gold Medal of Honor

US Section of Russian Academy of Natural Sciences, awarded 2002

PUBLICATIONS

REFEREED ARTICLES

- “Numerical Simulation of Drillstem Tests as an Interpretation Technique,” J.P. Brill, A.T. Bourgoyne, and T.N. Dixon, *Journal of Petroleum Technology*, (November 1969).
- “The Effect of Interfacial Films on the Displacement Efficiency of a Waterflood,” *Transactions, AIME* (1971).
- “A Multiple Regression Approach to Optimal Drilling and Abnormal Pressure Detection,” A.T. Bourgoyne and F.S. Young, *Transactions, AIME* (1974).
- “Factors Affecting Bubble Rise Velocity of Gas Kicks,” D.W. Rader, A.T. Bourgoyne and R.E. Ward, *Journal of Petroleum Technology* (May 1975).
- “A Feasibility Study on the Use of Subsea Chokes in Well Control Operations on Floating Drilling Vessels,” J.L. Mathews and A.T. Bourgoyne, *Journal of Petroleum Technology* (May 1982) and *Transactions, Society of Petroleum Engineers*, (1982).
- “Frictional Pressure Losses for Single Phase and Two-Phase Flow of Drilling Muds,” F.A. Elfaghi, J.P. Langlinais, A.T. Bourgoyne, and W.R. Holden, *Transactions of the ASME*, (September 1983) Vol. 105, pp. 372–78.
- “Petroleum Engineering Manpower Supply,” *Journal of Petroleum Technology* (March 1984) pp. 407–11.
- “An Experimental Study of Well Control Procedures for Deepwater Drilling Operations,” A.T. Bourgoyne and W.R. Holden, *Journal of Petroleum Technology*, (July 1985) and *Transactions, Society of Petroleum Engineers*, (1985) pp. 1239–1250, also *SPE Reprint Series*, Vol. 42, March 1996, pp. 110–121.
- “Frictional Pressure Losses for Annular Flow of Drilling Mud and Mud Gas Mixtures,” J.P. Langlinais, A.T. Bourgoyne and W.R. Holden, *Transactions of the ASME* (March 1985) Vol. 107, pp. 142–51.
- “Manpower Supply - Analysis of Survey Data,” *Journal of Petroleum Technology* (March 1986) pp. 303–305.
- “An Experimental Study of Gas Solubility in Oil-Based Drilling Fluids,” P.L. O’Bryan, A.T. Bourgoyne, T.G. Monger, and D.P. Kopsco, *SPE Drilling Engineering* (March 1988) pp. 33–42.

- “PDC Applications in the Gulf of Mexico with Water-Based Drilling Fluids,” A.D. Gault, H. Knowlton, H.E. Goodman and A.T. Bourgoyne, Jr., *SPE Drilling Engineering*, (June 1988) pp. 117–24.
- “Fracture Gradient Prediction for Offshore Wells,” W.D. Constant and A.T. Bourgoyne, *SPE Drilling Engineering*, (June 1988) pp. 136–40.
- “Methods for Handling Drilled Gas in Oil-Based Drilling Fluids,” P.L. O’Bryan and A.T. Bourgoyne, *SPE Drilling Engineering*, (September 1989), pp. 237–246.
- “Shale Water as a Pressure Support Mechanism in Gas Reservoirs Having Abnormal Formation Pressure,” A.T. Bourgoyne, *Journal of Petroleum Science and Engineering*, Vol. 3, No. 4, (January 1990), pp. 305–319.
- “Experimental Study of Gas Slip Velocity and Liquid Holdup in an Inclined Eccentric Annulus,” E.Y. Nakagawa and A.T. Bourgoyne, FED–Vol. 144, ASME, (November 1992), pp. 71–80.
- “How to Handle a Gas Kick Moving Up a Shut-In Well,” J.E. Mathews and A.T. Bourgoyne, Jr., *SPE Reprint Series*, Vol. 42, (March 1996), pp. 22–28.
- “Method for Determining the Feasibility of Dynamic Kill of Shallow Gas Flows,” W. L. Koederitz, F. E. Beck, J. P. Langlinais, and A.T. Bourgoyne, Jr., *SPE Reprint Series*, Vol. 42, (March 1996), pp. 66–77.
- “Recognizing Downhole Casing Failure During Well Control Operations,” A.T. Bourgoyne, Jr., *SPE Reprint Series*, Vol. 42, (March 1996), pp. 202–206.
- “A New Simple Method to Estimate Fracture Pressure Gradient,” L.A. Rocha and A.T. Bourgoyne, Jr., *SPE Drilling and Completion*, (September 1996), pp. 153–159.
- “Use of Soil Borings Data for Estimating Break-down Pressure of Shallow Marine Sediments,” C.V. Bender, A.T. Bourgoyne, Jr. and J.N. Suhayda, *Journal of Petroleum Engineering*, Vol. 14, (1996), pp. 101–114.
- “Failure of Wellbores During Well Control Operations,” M. E. Chenevert, A. T. Bourgoyne, Jr. and C. F. H. Fonseca, *Turkish Journal of Oil and Gas*, Vol. 3 (June 1997) p 22.
- “A Computer Assisted Well Control Safety System for Deep Ocean Well Control,” O. A. Kelly, W. R. Holden, and A. T. Bourgoyne, Jr., *Turkish Journal of Oil and Gas*, Vol. 3 (June 1997) p 30.

- “Experimental Study of Gas Slip Velocity and Liquid Holdup in an Inclined Eccentric Annulus,” Nagakawa, E. Y. and A. T. Bourgoyne, Jr., *Turkish Journal of Oil and Gas*, Vol. 3 (October 1997) p 22.
- “An Analysis of the Design Loads placed on a Well by a Diverter System,” Beck, F. E. and J. P. Langlinais and A. T. Bourgoyne, Jr., *Trans. ASME*, Vol. 120 (March 1998).
- “An Analysis of the Design Loads placed on a Well by a Diverter System,” Beck, F. E. and J. P. Langlinais and A. T. Bourgoyne, Jr., *Journal of Energy Resource Technology* (June 1998).
- “Co-current and Countercurrent Migration of Gas Kicks in ‘Horizontal’ Wells,” Baca, H., Nikitopoulos, J. Smith, and A.T. Bourgoyne, Jr., *Trans. ASME*, Vol. 121 (June 1999) p 96.
- “New Model to Analyze Non-Linear Leak-off Test Behavior,” Altun, G. and E. Shirman, J. P. Langlinais, and A. T. Bourgoyne, Jr., accepted for publication by *JERC*.

BOOKS AND CHAPTERS

- “Drilling Practices,” A Chapter in Encyclopedia of Chemical Processing and Design, Vol. 16, Edited by John J. Mcketta and William A. Cunningham, Marcel Dekker, Inc. New York 10016 (1982), pp 359– 394.
- Applied Drilling Engineering*, A.T. Bourgoyne, K.H. Milheim, M.E. Chenevert, and F.S. Young, Society of Petroleum Engineers of AIME, Dallas, TX (SPE Textbook Series Vol. 2) (1986), 502 pages.
- “Shallow Abnormal Pressure Hazards,” Chapter 10 in *Studies in Abnormal Pressure*, Edited by W.H. Fertl, Richard Chapman, and Rod F. Hotz, Elsevier Scientific Publishing Co., New York, (1994), pp. 281– 317.
- “Shallow Gas Blowouts”, Bourgoyne, A. T. Zwald, E. A., and Abel, L. W., Chapter 4 in *Firefighting and Blowout Control*, by L. William Abel, Joe R. Bowden, Sr., and Patrick J. Campbell, Wild Well Control, Inc., Houston, TX (1994), pp 83–121.

TRADE JOURNALS

- “Graphs Simplify Drilling Hydraulics,” *World Oil*, (January 1969).

- “Computer Graphics Improve Drilling Hydraulics,” A.T. Bourgoyne and R.E. McKee, *Petroleum Engineer*, (September 1970).
- “Porosity and Pore Pressure Logs,” A.T. Bourgoyne, J.A. Rizer and G.M. Myers, *The Drilling Contractor*, (June 1971).
- “A Graphic Approach to Overpressure Detection While Drilling,” *Petroleum Engineer*, (September 1971).
- “Graphic Approach to Kick Severity Calculations,” *Petroleum Engineer*, (September 1976).
- “Well Control Procedures for Deepwater Drilling - Part 1,” A.T. Bourgoyne, W.R. Holden, B.R. Hise and R.S. Sullins, *Ocean Resources Engineering* (April 1978).
- “Well Control Procedures for Deepwater Drilling - Part 2: Control of Shallow Kicks,” A.T. Bourgoyne, W.R. Holden, B.R. Hise, and R.S. Sullins, *Ocean Resources Engineering*, (October 1978).
- “Well Control Procedures for Deepwater Drilling - Part 3: Initiation of Well Control Operations,” A.T. Bourgoyne, W.R. Holden, B.R. Hise and R.S. Sullins, *Ocean Resources Engineering*, (December 1978).
- “University Uses On-Campus Abandoned Well to Simulate Deep Water Well Control Operations,” *Oil & Gas Journal*, (May 31, 1982), pp. 138–141.
- “Bubble Chopping— A New Way to Control Large, Deep Gas Kicks,” *World Oil*, (December 1984) pp. 75–82.
- “Changing Drilling Technology— What Three Experts Say,” J. Smith, D. Hammet, and A.T. Bourgoyne, *Petroleum Engineer International* (September 1985).
- “Integration of MWD & Well Control Technologies,” A.T. Bourgoyne and R. Desbrandes, *Offshore* (September 1986) pp. 49–52.
- “MWD Transmission Data Rates Can Be Optimized,” R. Desbrandes, A.T. Bourgoyne, and J.A. Carter, *Petroleum Engineer International* (June 1987) pp. 46–52.
- “Identifying Crater Potential Improves Shallow Gas Kick Control,” L.A. Rocha and A.T. Bourgoyne, *Oil & Gas Journal*, (December 27, 1993) pp 93–98.
- “Rotating Control Head Applications Increasing,” A.T. Bourgoyne, *Oil & Gas Journal*, (October 9, 1995), pp. 72–77.
- “Annual Editorial Advisor’s Section: Current Issues in Well Control,” A.T. Bourgoyne, *Petroleum Engineer International*, (February 1996), pp. 27–28.

- “New Ideas for Shallow Gas Well Control,” A.T. Bourgoyne, O.A. Kelly, and C.L. Sandoz, *World Oil*, (June 1996), pp. 50–51.
- “New Model Rotating Control Head Tested,” A.T. Bourgoyne, Jr., *The Brief*, Murphy Publishing, Inc., (October 1996), pp. 25–27.
- “Applications and Limitations of Underbalanced Drilling and Completion Technology”, *Oil and Gas Reporter* (April, 2000).
- “Case Histories bring Reality to Well Control Training,” J.R. Smith, A. T. Bourgoyne, Jr., S. M. Waly, and E.B. Hoff, *World Oil*, (June 2000), Vol. 221 No. 8, p 39-46.

CONFERENCE PROCEEDINGS

- “A Critical Examination of Rotary Drilling Hydraulics,” Proceedings of Second SPE Conference on Drilling and Rock Mechanics; Austin, TX (January 1968).
- “The Determination of Porosity and Pore Pressure Logs from Drilling Data,” A.T. Bourgoyne, J.A. Rizer, and G.M. Myers, Transactions of the Ninth Annual AAODC Rotary Drilling Conference, Houston, TX (February 1971) pp. 15–22.
- “The Use of Drillability Logs for Formation Evaluation and Abnormal Pressure Detection,” A.T. Bourgoyne and F.S. Young, Proceedings of SPWLA Fourteenth Annual Logging Symposium; Lafayette, LA (May 1973).
- “A University View of the Status and Future of Petroleum Engineering Education,” Proceedings of the First Annual Engineering Manpower Conference of SPE; Houston, TX (June 1978).
- “The Dynamics of Well Control,” Proceedings of the Second Research and Development Conference for OCS Oil and Gas Operations; Reston, VA (April 1980).
- “Development of Improved Blowout Prevention Procedures for Deepwater Drilling Operations,” Proceedings of the Third Research and Development Conference for OCS Oil and Gas Operations: Reston, VA (November 1981).
- “Risk Analysis in Design, Operation, and Maintenance of Offshore Oil and Gas Facilities,” International Workshop on the Application of Risk Analysis to Offshore Oil and Gas Operations, National Bureau of Standards, Gaithersburg, Maryland (March 1984).

- “Development of Improved Blowout Prevention Procedures for Deepwater Drilling Operations,” Proceedings of the Fourth Research and Development Conference for OCS Oil and Gas Operations, Reston, VA (March 1984) pp. 275–86.
- “Improved Gas Diverter Systems,” Proceedings of the Fifth Annual Gulf of Mexico Information Transfer Meeting, US Department of Interior, New Orleans, LA (October 1985) pp. 29–30.
- “Experimental Study of Diverters,” Proceedings of the Fifth Research and Development Conference for OCS Oil and Gas Operations, Reston, VA (1986) pp. 175–82.
- “An Experimental Study of Fluidic Mud Pulsers,” Proceedings of the Fifth Research and Development Conference for Oil and Gas Operations, Reston, VA (1986) pp. 183–191.
- “Technological Developments for Improved Well-Control Procedures,” Proceedings for the Fifth Research and Development Conference for Oil and Gas Operations, Reston, VA (1986) pp. 192–199.
- “Petroleum Engineering Manpower Supply - Results of the 1986 Survey,” Proceedings of the Annual Fall Meeting of SPE, New Orleans, LA (October 1986) SPE 15459.
- “Experimental and Theoretical Considerations for Diverter Evaluation and Design,” F.E. Beck, J.P. Langlinais, and A.T. Bourgoyne, Proceedings of the 56th California Regional Meeting of SPE, Oakland, CA (April 1986) SPE 15111.
- “An Analysis of the Design Loads Placed on a Well by a Diverter System,” F.E. Beck, J.P. Langlinais, and A.T. Bourgoyne, Proceedings of the 1987 SPE/IADC Rotary Drilling Conference, New Orleans, LA (March 1987) SPE/IADC 16129.
- “Petroleum Engineering Manpower Supply - Results of the 1987 Survey,” Proceedings of the Annual Fall Meeting of SPE, Dallas, TX (September 1987) SPE 16834.
- “Joint Industry/Government/University Programs of Research and Development,” Proceedings of the Annual Fall Meeting of SPE, Dallas, TX (September 1987) SPE 16825.
- “Petroleum Engineering Manpower Supply - Results of the 1988 Survey,” A.T. Bourgoyne, Proceedings of the Annual Fall Meeting of SPE, Houston, TX (October 2–5, 1988) SPE 18336.
- “Generation, Migration, and Transportation of Gas Contaminated Regions of Drilling Fluid,” A.T. Bourgoyne and V. Casariego, Proceedings of the Annual Fall Meeting of SPE, Houston, TX (October 2–5, 1988) SPE 18020.

- “Experimental Study of Erosion of Diverter Systems Due to Sand Production,” A.T. Bourgoyne, Proceedings of the 1989 SPE/IADC Rotary Drilling Conference, New Orleans, LA (February 28–March 3, 1989) SPE/IADC 18716, pp. 807-816.
- “Experimental Study of Diverter Systems Used in Offshore Drilling Operations,” A.T. Bourgoyne, Proceedings of the 1988 Technology Assessment and Research Program for Offshore Minerals Operations, OCS Study MMS 88-0057, U.S. Department of Interior (April 6–7, 1989) pp. 6-10.
- “A Microcomputer Aided Experimental Gas Reservoir Simulator for Well-Control Operations,” A.T. Bourgoyne, SPE Petroleum Computer Conference: Technology for the 90’s Efficiency, Productivity, Applications, (June 26, 1989).
- “Experimental Bench Mark Data for Testing Well Control Computer Models,” V. Casariego and A.T. Bourgoyne, Jr., International Well Control Symposium, (November 27–29, 1989).
- “Blowout Prevention in Deepwater Drilling,” A.T. Bourgoyne, Jr., Proceedings of the 11th Annual Information Transfer Meeting, Gulf of Mexico (OCS) Region, (November 13–15, 1990), New Orleans, LA.
- “General Computerized Well Control Kill Sheet for Drilling Operations with Graphic Display Capabilities,” H.C. Leitao, E.E. Maidla, and A.T. Bourgoyne, Proceedings of SPE Computer Conference, Denver, CO (June 25–26, 1990), SPE 20327.
- “Reliability of Offshore Drilling Operations,” A.T. Bourgoyne, G.L. Lever, and B. Berry, Proceedings of the International Workshop on Reliability of Offshore Operations, National Bureau of Standards and Technology, Gaithersburg, Maryland (March 20–22, 1991).
- “Computerized Kill Sheet for Most Drilling Operations,” H.C. Leitao, E.E. Maidla, O.A. Santos, F.A. Notto, and A.T. Bourgoyne, Proceedings of the 1992 IADC/SPE Drilling Conference, New Orleans, LA (February 18–21, 1992) (IADC/SPE 23933).
- “Improved Method of Predicting Wellhead Pressure During Diverter Operations,” A.T. Bourgoyne, Proceedings of IADC’s Third Annual European Well Control Conference, Noordwijkerhout, The Netherlands (June 2–4, 1992).
- “A Spreadsheet Approach to Diverter Design Calculations,” A.T. Bourgoyne, Proceedings of the IADC Well Control Conference of the Americas, Houston, TX (November 17–19, 1992).

- “General Access Well Information Database,” A.T. Bourgoyne, V.K. Sinha and L.A. Rocha, Proceedings of the SPE Petroleum Computer Conference, Dallas, TX, (July 31-August 3, 1994) (SPE 28232).
- “Advanced Control System Developed for Well Control Operations,” O.A. Kelly and A.T. Bourgoyne, Proceedings of the IADC Well Control Conference of the Americas, Houston, TX (November 16–17, 1994).
- “Integration of MWD and Process Control Technology Into an Advanced Well Control System,” O.A. Kelly and A.T. Bourgoyne, Proceedings of the IADC Well Control Conference of the Americas, Houston, TX, (November 16–17, 1994).
- “Experimental Study of Erosion Resistant Materials for Use in Diverter Components,” A. Jain and A.T. Bourgoyne, SPE International Student Paper, Proceedings of the SPE Annual Technical Conference and Exhibition, Dallas, TX, (October 22–25, 1995).
- “Well Control Aspects of Underbalanced Drilling,” A.T. Bourgoyne, IADC Well Control Training Roundtable, Plano, TX, (April 2, 1996).
- “Manpower Trends in the Petroleum Industry,” presented to the Gulf Coast Section of the Society of Petroleum Engineers, Houston, TX, (May 9, 1996).
- “A Method for Planning Well Control Operations Involving an Induced Fracture,” A. F. Negrao and A. T. Bourgoyne, Jr., proceedings of the ASME Petroleum Division Conference, Houston, TX, (1996).
- “New Developments in Computer Modeling of Blowout Control Operations,” A. T. Bourgoyne, D. Barnett, and D. Eby, proceedings of the IADC Well Control Conference of the Americas, Rio de Janeiro, Brazil, (July 31-August 2, 1996).
- “Feasibility Study of Dual Density Mud System for Deepwater Drilling Operations,” C. A. Lopes and A. T. Bourgoyne, Jr., proceedings of the Offshore Technology Conference, Houston, TX, (May 5-8, 1997).
- “Well Control Considerations for Deepwater Drilling Operations,” A. T. Bourgoyne, Jr., proceedings of the IBC Deepwater Technologies Conference, Houston, TX, (July 28-29, 1997).
- “Computer-Assisted Well Control System for Deep Ocean Drilling Environments,” O. A. Kelly and A. T. Bourgoyne, Jr., proceedings of the IADC International Deep Water Well Control Conference, (September 15-16, 1997).

- “Case History-Based Training for Control and Prevention of Underground Blowouts,” J. R. Smith and A. T. Bourgoyne, Jr., proceedings of the SPE Annual Technical Conference and Exhibition, San Antonio, TX, (October 5 - 8, 1997).
- “Well Control Considerations for Underbalanced Drilling,” A. T. Bourgoyne, Jr., proceedings of the SPE Annual Technical Conference and Exhibition, San Antonio, TX, (October 5 - 8, 1997).
- “A Relief Well Model for Deep Water Drilling and Production Systems,” Bourgoyne, A. T. Jr. and D. Barnett and D. Eby, proceedings of the IADC Well Control Conference, Houston, August 26-27, 1998.
- “A Subsea Rotating Control Head for Riserless Drilling Applications,” Bourgoyne, D. A. and Bourgoyne, A. T. Jr and D. Hannegan, proceedings of the IADC Well Control Conference, Houston, August 26-27, 1998.
- “Circulating Kick Tolerance for Deepwater Drilling,” Ohara, S. and A. T. Bourgoyne, Jr., proceedings of the IADC Well Control Conference of the Americas, Caracas, October 29-30, 1998.
- “Sustained Casing Pressure in Offshore Producing Wells,” OTC 11029, Bourgoyne, Adam T., Jr., Stuart L. Scott, and James B. Regg, presented at the Offshore Technology Conference, Houston, 3–6 May 1999.
- “Case Histories Bring Reality to Well Control Training,” Smith, J.R., Bourgoyne, A. T., Waly, S.M., and Hoff, E.B., IADC Well Control Conference of the Americas ,Houston, TX, August 25-26, 1999.
- “Deepwater Drilling with Lightweight Fluids: Essential Equipment Required,” D.M. Hannegan and A. T. Bourgoyne, Jr., World Oil, March 2001.
- “Counter-current and Co-current Gas Kicks in Horizontal Wells: Non-Newtonian Rheology Effects,” H. Baca, D.E. Nikitopoulos, J.R. Smith, and A.T. Bourgoyne, Proceedings of ETCE/OMAE2000 Joint Conference, (February 14-17, 2000), New Orleans, LA. Paper No. ETCE2000/DRIL-10117.

COURSES TAUGHT

UNDERGRADUATE COURSES

| | |
|-----------|---------------------------------------|
| CS 1241 | FORTTRAN Programming |
| PETE 2020 | Introduction to Petroleum Engineering |

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| PETE 3025 | Petroleum Economics |
| PETE 3031 | Reservoir Fluid Flow |
| PETE 3032 | Phase Behavior of Hydrocarbon Systems |
| PETE 3033 | Petrophysics Laboratory |
| PETE 3034 | Phase Behavior Laboratory |
| PETE 3990 | Undergraduate Special Projects |
| PETE 4045 | Drilling Engineering |
| PETE 4046 | Well Design—Production |
| PETE 4051 | Reservoir Engineering |
| PETE 4059 | Drilling Fluids Laboratory |
| PETE 4060 | Prevention of Oil and Gas Well Blowouts |
| PETE 4086 | Advanced Drilling Engineering |

GRADUATE COURSES

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| PETE 7201 | Advanced Reservoir Engineering |
| PETE 7241 | Horizontal Well Technology |
| PETE 7242 | Risk Analysis in making Economic Decisions in the Petroleum Industry |
| PETE 7256 | Special Problems in Petroleum Engineering |
| PETE 7280 | Reservoir Simulation |

EXTENSION COURSES

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| PETE 4045 | Drilling Engineering, USGS Office, Metairie, LA 1979–80 |
| PETE 7241 | Horizontal Drilling, UNO Downtown Center, New Orleans, LA 1996 |

SHORT COURSES

Well Control Training leading to MMS Certification, 1971-1998
Well Completion Short Courses and Drilling Engineering Practicum, 1978-1980
Hydraulic Fracturing School, Rock Mechanics Section, 1996

RESEARCH DIRECTED

GRANTS AND CONTRACTS

- “A Multiple Regression Approach to Optimal Drilling and Abnormal Pressure Detection,” Bariod Division of N.L. Industries, Inc., \$11,649, 1972–73.
- “The Determination of Abnormal Formation Pressure Using a Computerized Mathematical Model of the Rotary Drilling Process,” Bariod Division of N.L. Industries, Inc., \$9,200, 1973–74.

- “Experimental Research on New Surfactant Placement Techniques for Enhanced Recovery of Petroleum by Water Displacement,” O.K. Kimbler, A.T. Bourgoyne, Jr., and W.R. Whitehead, \$28,000, 1976–77.
- “Development of Improved Laboratory and Field Procedures for Determining the Carrying Capacity of Drilling Fluids,” Milchem, Inc., \$12,072.
- “Investigation of Enhanced Oil Recovery Through Use of Carbon Dioxide,” W.R. Whitehead, O.K. Kimbler, W.R. Holden, and A.T. Bourgoyne, Jr., U.S. Department of Energy, \$161,120, 1978–79.
- “Technical Support for Geopressured Well Activities in Louisiana,” Z. Bassiouni, W.J. Bernard, and A.T. Bourgoyne, \$85,500, 1978–79.
- “Development of Improved Blowout Prevention Procedures to be Used in Deepwater Drilling Operations,” A.T. Bourgoyne, Jr., W.R. Holden, and B.R. Hise, U.S. Department of the Interior, \$822,962, 1978–82.
- “A Proposal for the Expansion of the LSU-IADC Blowout Prevention Training Center,” Various companies in petroleum industry, \$2,000,000, 1980–82.
- “A Feasibility Study of the Integration of Measurements While Drilling (MWD) Technology and Well Control Technology,” A.T. Bourgoyne, Jr., and W.R. Holden, U.S. Minerals Management Service, \$90,000, 1983.
- “The Development of Improved Blowout Prevention Systems for Offshore Drilling Operations,” A.T. Bourgoyne, Jr., W.R. Holden, and J.P. Langlinais, U.S. Minerals Management Service, \$1,800,000, 1983–88.
- “Well Control Problems Associated with Gas Solubility in Oil-Base Muds,” Drilling Engineering Association Project 4, \$160,000, 1984–87.
- “Field Analysis of Well Control,” Drilling Engineering Association, Project 7, \$1,061,505, 1986–88.
- “Fluid Dynamics of Oil Storage and Production Cycles in the Weeks Island Strategic Petroleum Reserve,” A.T. Bourgoyne, Jr., S. Acharya and A. Wojtanowicz, Sandia Laboratories, \$50,000, 1988–89.
- “Improved Contingency Procedures for Complications Arising During Offshore Blowout Prevention Operations,” Minerals Management Service, \$950,000, 1988–94.
- “Use of Vector Processor for Locating Large Area of Bypassed Oil,” with Moore and Tyler, Louisiana Education Quality Support Fund, \$322,000, 1988–90.

- “Memorandum of Understanding - Annex I (Bypassed Oil Study),” A.T. Bourgoyne, Jr., C.A. Groat, R. Sassen, and B. Baumann, U.S. DOE, \$750,000, 1989–90.
- “Improved Procedures for Handling Underground Blowouts in a Marine Environment,” Minerals Management Service, A.T. Bourgoyne, Jr., A. Wojtanowicz, and O.A. Kelly, \$1,600,000, 1994–99.
- “Improved Methods for Selecting Kick Tolerance During Deepwater Drilling Operations,” A.T. Bourgoyne, Jr. and O.A. Kelly, Petrobras, \$99,215, 1994–96.
- “Improved Recovery from Gulf of Mexico Reservoirs,” Z. Bassiouni, A.T. Bourgoyne, Jr. and C. Kimbrell, DOE, \$950,000, 1995–96.

THESES DIRECTED

- Mannarino, Remo: “The Effects of Sealing and Non-Sealing Faults on Pressure Build-Up and Pressure Draw-down Analysis” (August, 1971).
- Lavaquial, Fernando P.: “Water Influx Into Petroleum Reservoirs from Adjacent Shales” (August, 1971).
- Rader, David W.: “Movement of Gas Slugs Through Newtonian and Non-Newtonian Liquids in Vertical Annuli” (May, 1973).
- Simmons, Richard D.: “A Comparison of Horizontal Multiphase Flow Pressure Loss Correlations” (May, 1973).
- McKenzie, Michael F.: “Factors Affecting Surface Casing Pressure During Well Control Operations,” (August, 1974).
- Ward, Robert H.: “Movement of Gas Slugs Through Static Liquids in Large Diameter Annuli,” (August, 1974).
- Koederitz, W.L.: “The Mechanics of Large Bubbles Rising in an Annulus,” (May, 1976).
- Mathews, Gerald L.: “A Microscopic Investigation of the Use of Preferentially Oil Soluble Surface Active Agents to Enhance Oil Recovery,” (May, 1977).
- Ofoh, EberePaulinus: “The Effect of Flood Rate on Displacement Efficiency When Using Oil Soluble Surface Active Agents to Enhance Oil Recovery,” (May, 1978).
- Sample, Kenneth John: “Development of Improved Procedures for Determining the Carrying Capacity of Drilling Fluids,” (August, 1978).
- Bizanti, Mohamed: “New Bit Designs for Reducing Bottom Hole Pressure While Drilling,” (December, 1978).

- Mathews, Jeffrey L.: "Upward Migration of Gas Kicks in a Shut-in Well," (May, 1980).
- Casariago, Vicente G.: "Experimental Study of Two Phase Flow Patterns Occurring in a Well During Pressure Control Operations," (May, 1981).
- Redmann, Kerry P.: "Flow Characteristics of Commercially Available Drilling Chokes Used in Well Control Operations," (May, 1982).
- McFadden, Peter G.: "The Pressure Behavior of a Shut-in Well Due to the Upward Migration of a Gas Kick," (December, 1984).
- O'Bryan, Patrick L.: "Experimental and Theoretical Study of Methane Solubility in an Oil-Base Drilling Fluid," (December, 1985).
- Johnson, Paul: "Experimental Study of Erosion in a Model Diverter System" (December, 1987).
- Bourgeois, Steve, "The Evaluation of a Horizontal Well Completion for Recovery of Bypassed Oil in a South Louisiana Bottom Water Drive Reservoir," (May, 1989).
- Cooke, M. Scott, "Reservoir Study of the Lafitte Field in South Louisiana," (December, 1990).
- Hebert, Lance, "An Experimental Study of Water Coning in Horizontal Wellbores," (May, 1990).
- Rocha, Luiz Alberto Santos, "A Critical Analysis of Petrobras Data System," (December, 1991).
- Ghosh, Biswajit, "Experimental Study of Erosion in a Fluidic Vortex Valve," (January 1992).
- Mendes, Pedro Paulo Melo, "Two Phase Flow in a Vertical and Inclined Eccentric Annulus," (January, 1992).
- Gautam, Anurag, "Effect of Cell Geometry on Pulsar Performance for MWD Applications," (December, 1992).
- Franklin, Bernard, "Effect of Produced Gas-Water Ratio on Erosion Rate in a Diverter," (August, 1993).
- Wang, Y.: "Gas Slip Velocity through Water and Non-Newtonian Liquids in Vertical and Inclined Eccentric Annuli." M.S. Thesis, LSU, Baton Rouge, LA. (Dec. 1993).
- Jain, Alok, "Experimental Study of Erosion Resistant Materials for Use in Diverter Components," (May, 1995).

Smith, John Rogers, "Drilling Overpressured Shales with PDC Bits," (December, 1995).

DISSERTATIONS DIRECTED

Almedia, Mauricio de A.: "Computer-Aided Analysis of Formation Pressure Integrity Tests Used in Oil Well Drilling" (December, 1986).

Casariego, Vicente G.: "Generation, Migration, and Transportation of Gas Contaminated Regions of Drilling Fluid" (December, 1987).

Santos, Otto Luiz A., "A Dynamic Model of Diverter Operations for Handling Shallow Gas Hazards in Oil and Gas Exploratory Drilling," (May, 1989).

Nakagawa, Edson, "Gas Kick Behavior During Well Control Operations in Vertical and Slanted Wells," (November 1990).

Rocha, Luiz, "Mechanisms leading to Crater formation while Drilling for Oil and Gas," (December 1993).

Negrao, Alvero "Relief Well Requirements for Dynamic Kill of Underground Blowouts," (May 1995).

Koederitz, W.: "Gas Kick Behavior during Bullheading Operations in Vertical Wells," (May 1995).

Ohara, Shiniti, "Experimental Study of Plugging Techniques for Underground Blowouts," (May 1996).

Kelly, O. Allen, "Development of a Prototype Computer-Assisted Well Control System for Deep Ocean Drilling Environments," (May 1997).

Lopes, Clovis, "Feasibility Study on the Reduction of Hydrostatic Pressure in a Deep Water Riser Using a Gas-Lift Method," (May 1997).

Smith, John Rogers, "Diagnosis of Poor PDC Bit Performance in Deep Shales," (August 1998).

Gursat, Altun, "Methods for Determining Fracture Resistance of Upper Marine Sediments," (May, 1999).