

CURRICULUM VITA

STEPHEN A. HOLDITCH

PERSONAL

Birth Date: October 20, 1946
Place of Birth: Corsicana, Texas
Citizenship: United States of America
Residence: 3024 Hickory Ridge Circle
Bryan, Texas 77807

AREAS OF SPECIALIZATION

- Formation evaluation using log, core and test data
- Fracture treatment design, evaluation, and optimization
- Development of unconventional gas reservoirs
- Well completions and workovers

The development of these areas of expertise includes a mixture of basic research, applied research and industry experience.

EDUCATIONAL EXPERIENCE

- Head of Dept. of Petroleum Engineering, Texas A&M Jan. 2004 to Present
- Professor Emeritus, Texas A&M University Sept. 2001 to Present
- Professor, Texas A&M University Sept. 1984 – Aug. 2001
- Associate Professor, Texas A&M University Sept. 1980 – Aug. 1984
- Assistant Professor, Texas A&M University Jan. 1976 – Aug. 1980

PROFESSIONAL EXPERIENCE

TEXAS A&M UNIVERSITY Head of the Department of Petroleum Engineering January 2004 – Present

Stephen A. Holditch is the Head of the Petroleum Engineering Department at Texas A&M University. The Department has 30 faculty and research positions and 16 staff positions. There are over 450 undergraduate students and 200 graduate students enrolled in Petroleum Engineering in College Station, Texas. There are another 50 students in Doha, Qatar.

Dr. Holditch joined the faculty at Texas A&M University in 1976 and has been on the faculty continuously since that time. He has taught 94 courses, has served on the committees of 131 graduate students, and has been the chairman of 61 of those graduate student committees since 1976. Dr. Holditch has taught both graduate and undergraduate courses and is serving on 9 graduate committees, of which he is the chairman for 8 students.

Dr. Holditch was SPE President 2002, and he was SPE Vice President of Finance from 1998-2000. As an SPE Officer, Holditch served on the SPE Board of Directors from 1998 -2003. In addition, Dr. Holditch served as from 1997-1998 as a Trustee for the American Institute for Mining, Metallurgical and Petroleum Engineers (AIME).

Dr. Holditch has received many awards in recognition of his technical achievements and leadership. In 1995, Dr. Holditch was elected to the U. S. National Academy of Engineering (NAE). Dr. Holditch was elected as an Honorary Member of the Society of Petroleum Engineers and the AIME in 2006, which is the highest award given by the two societies. In 1997, he was elected to the Russian Academy of Natural Sciences, and in 1998, Holditch was elected to the Petroleum Engineering Academy of Distinguished Graduates at Texas A&M University. In 1989, he was selected as a Distinguished Member of the Society of Petroleum Engineers (SPE). In 1994, the SPE awarded Dr. Holditch the Lester C. Uren award in recognition of distinguished achievement in petroleum engineering technology made by a member before reaching age 45. In 1999, Dr. Holditch received the ASME Rhodes Industry Leadership Award, and the SPE John Franklin Carll Award. In 2005, Dr. Holditch will receive the SPE and AIME Anthony F. Lucas Gold Medal for technical contributions to the petroleum industry. He has published over 120 technical articles, and has made several hundred presentations.

**SCHLUMBERGER
SCHLUMBERGER FELLOW
June 1999 – December 2003**

In April 1999, Stephen A. Holditch was named a Schlumberger Fellow. In this position, Dr. Holditch was a Production and Reservoir Engineering advisor to the top managers within Schlumberger. Dr. Holditch formed S. A. Holditch & Associates, Inc. (HOLDITCH) in 1977. In 1997, HOLDITCH became part of Schlumberger Technology Corporation. In 1999, HOLDITCH was combined with other groups in Schlumberger to form Holditch Reservoir Technologies, which is now called Schlumberger Data and Consulting Services.

Dr. Holditch was the Society of Petroleum Engineers, International (SPE) President 2002. He was the SPE Vice President - Finance and served continuously on the SPE Board of Directors from 1998-2003. In addition, he served as a Trustee for the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME) from 1997-1998.

**S. A. HOLDITCH & ASSOCIATES, INC.
PRESIDENT
May 1977 – June 1998**

Stephen A. Holditch formed S. A. Holditch & Associates, Inc. (HOLDITCH) in 1977. Dr. Holditch was the President and Chief Executive officer from inception until June 1998 when he moved on to become a Schlumberger Fellow. HOLDITCH grew in the late 1970's and early 1980's by providing petroleum technology involving the analysis of low permeability gas reservoirs and the design of hydraulic fracture treatments. During the latter half of the 1980's and into the 1990's, Dr. Holditch expanded the services offered by HOLDITCH by surrounding himself with a large, extremely talented professional engineering staff. The company grew from 3 employees in 1977 to more than 80 employees in 1998. HOLDITCH was a full-service petroleum engineering consulting company that solved virtually any petroleum engineering problem. In 1997, HOLDITCH became part of Schlumberger Technology Corporation.

On October 31, 1997, Schlumberger acquired S. A. Holditch & Associates, Inc. In addition to his regular duties as President and Chief Executive Officer of HOLDITCH, Dr. Holditch was involved in strategic planning with Dowell and Schlumberger. Areas in which Dr. Holditch contributed to the Schlumberger business strategy include:

- Creation of a Technical Career Ladder
- Involved in the initial planning of the possible "consolidation" of all consulting groups within Schlumberger, and
- Planning and development of fracture treatment design strategies.

TEXAS A&M UNIVERSITY
Faculty
1976 - 2006

Stephen A. Holditch joined the Petroleum Engineering faculty at Texas A&M University in 1976. Dr. Holditch was granted the title of Professor Emeritus of Petroleum Engineering in 2001. After 2001, Dr. Holditch reduced his teaching and research load at Texas A&M as he was concentrating on his obligations as SPE President and Schlumberger Fellow. Over the years, he has taught virtually every undergraduate course and several graduate level courses on Formation Evaluation, Well Stimulation, and Production Engineering. Holditch has actively performed and supervised research since 1974 in the areas of:

- low permeability gas reservoir engineering,
- hydraulic fracture treatment design,
- reservoir simulation,
- simulation of hydraulic fracture treatments,
- evaluation of hydraulic fracture treatment fluids,
- non-Darcy flow of gas in fractures,
- effects of mud filtrate invasion upon drill stem tests,
- effects of mud filtrate invasion upon induction log response, and
- the effects of fracture fluid cleanup behavior upon well productivity.

These research efforts expanded into new areas, such as the effects of horizontal boreholes on well productivity, producing gas from coal seam reservoirs and systematic studies of gas storage fields.

INDEPENDENT CONSULTANT
1974 - 1976

Holditch worked as an independent consulting engineer on reservoir studies, well completions and fracture treatment design for various clients in East Texas and South Texas. He also attended Texas A&M University to earn a Ph.D. in Petroleum Engineering. Research was conducted concerning reservoir flow behavior in fractured, low permeability gas reservoirs.

SHELL OIL COMPANY
PRODUCTION ENGINEER
1970 - 1974

Responsibilities included production engineering for numerous oil and gas fields. In charge of well completions and massive hydraulic fracture treatment designs for about 25 wells in several deep, geopressured Vicksburg and Wilcox fields in South Texas. I worked on a project to evaluate the effects of large compressor installations and/or modifications for three South Texas gas fields. Experience includes field supervision of workovers, fracture treatments, acid treatments and well logging.

PAN AMERICAN PETROLEUM CORPORATION

**ENGINEER
1968 - 1969**

Holditch worked as a field engineer on various projects in the East Texas field and in a sour gas processing plant including practical roustabout experience.

EDUCATION

Texas A&M University - B.S. Petroleum Engineering (1969)
Texas A&M University - M.S. Petroleum Engineering (1970)
Texas A&M University - Ph.D. Petroleum Engineering (1976)

PROFESSIONAL AFFILIATIONS

National Academy of Engineering (NAE)
Russian Academy of Natural Sciences (RANS)
Society of Petroleum Engineers (SPE)
American Association of Petroleum Geologist (AAPG)
Society of Professional Well log Analysts (SPWLA)
Society of Petroleum Evaluation Engineers (SPEE)
Pi Epsilon Tau
Sigma Xi
Registered Professional Engineer - Texas No. 37604

BUSINESS/COMMUNITY AFFILIATIONS

Board Member of Matador Resources Corporation in Dallas, Texas (2003 – Present)
Advisory Board Member of Wells Fargo Bank in Bryan, Texas (1982 – Present)
Member of the National Petroleum Council (2006-Present)
Member of the Board of Trustees for the SPE Foundation (2002 – Present)
Board Member for the Network of Excellence in Training (2004 – Present)
Board Member for Triangle Petroleum (2005 – Present)
Board Member for Research Partnership to Secure Energy for America (2005 – Present)
Board of Trustees Member for Reasoning Mind (2004 – Present)
Board Member for the Research Valley Partnership (2006 - Present)
Member of External Research Advisory Committee for Saudi Aramco (2006 - Present)
Member of External Research Advisory Committee for TerraTek (2006)
Member of Finance Committee for the National Academy of Engineering (2004 – 2007)
Member of Finance Committee for A&M United Methodist Church (2006 - 2009)
Former Board Member and President of Camp Creek Water Company (1992 – 1995)

HONORS AND AWARDS

SPE Distinguished Service Award for Petroleum Engineering Faculty - 1981
SPE Distinguished Lecturer - 1982-83
SPE Distinguished Lecturer - 1997-98
SPE Distinguished Member - 1989
TAMU Shell Distinguished Chair in Petroleum Engineering - 1983-87
SPE Lester C. Uren Award - 1994
National Academy of Engineering – 1995
Russian Academy of Natural Sciences – 1997
Petroleum Engineering Academy of Distinguished Graduates – 1998
SPE John Franklin Carll Award – 1999
ASME Rhodes Petroleum Industry Leadership Award – 1999
SPE Anthony B. Lucas Award – 2005
SPE Honorary Member - 2006

PROFESSIONAL ACTIVITIES

SPE Education and Accreditation Committee - 1974-1977
SPE Well Completions Committee - 1976, 1980, 1982
SPE Program Committee for Symposium on Low Permeability Gas Reservoirs 1978-79
SPE Editorial Committee - 1979
NPC Committee on Evaluation of Low Permeability Gas Reservoirs - 1979-80
SPE Distinguished Author Committee, 1983-84
SPE Monograph Subcommittee, 1984-86
SPE Chairman - 1986 Unconventional Gas Technology Symposium
SPE Distinguished Lecturer Committee, 1987-88
SPE Chairman, Distinguished Lecturer Committee - 1989
SPE Gas Technology Committee, 1987-1988
SPE Chairman - 1988 Gas Technology Symposium
SPE Reprint Series Committee - 1990-92
SPE Chairman, Reprint Series Committee, 1992-93
SPE Editor for the Coalbed Methane reprint, 1990-91
SPE Technology Today Series Committee, 1993-94
SPE JPT Special Series Committee, 1994-97
API Chairman, Subcommittee on Fracturing Fluids – 1995-97
AIME Board of Trustees – 1997-98
SPE Vice President of Finance – 1998-2000
SPE President 2002 – 2001-2003
SPE Foundation Board of Trustees – 2003-present
SPE Chairman – Carll, Lucas, Uren Awards Committee – 2003-2006
SPE Chairman – 2005 Long Range Plan Subcommittee on Management – 2004-2005
SPE Nominating Committee – 2006
SPE Chairman of the 2007 Hydraulic Fracturing Technology Conference
SPE Program Committee for 2007 R&D Conference