

Steven K. Henderson, Ph.D.

Texas Tech University
Bob L. Herd Department of Petroleum Engineering
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Licensure Certified Petroleum Geologist (#5885), American Association of Petroleum Geologists
Professional Geoscientist (#980), State of Texas

Education Ph.D. (1995), Geosciences, Texas Tech University.
M.S. (1992), Geosciences, Texas Tech University.
B.S. (1990), Geological Sciences, The University of Texas at Austin.

Experience Associate Professor of Practice, August 2016 – Present
Bob L. Herd Department of Petroleum Engineering, Texas Tech University

Lead Technical Instructor, September 2008 – August 2016
Halliburton Wireline and Perforating Training Center, Fort Worth, Texas

Technical Instructor (through Principal), January 1998 – September 2008
Halliburton Wireline and Perforating Training Center, Fort Worth, Texas

Field Engineer, February 1996 – January 1998
Halliburton Logging & Perforating, Odessa, Texas

Research Associate, September 1995 – December 1995
Center for Applied Petrophysical Studies, Texas Tech University, Lubbock, Texas

Instructor, September 1993 – May 1995
Department of Geosciences, Texas Tech University, Lubbock, Texas

Teaching Assistant, May 1994 – July 1994
Department of Geosciences, Texas Tech University, Lubbock, Texas

Research Assistant, January 1993 – September 1993
Center for Applied Petrophysical Studies, Texas Tech University, Lubbock, Texas

Teaching Assistant, September 1992 – December 1993
Department of Geosciences, Texas Tech University, Lubbock, Texas

Research Assistant, June 1991 – August 1992
Department of Geosciences, Texas Tech University, Lubbock, Texas

Teaching Assistant, September 1990 – May 1991
Department of Geosciences, Texas Tech University, Lubbock, Texas

Assistant to Geologists, January 1984 – February 1986
Chital Petroleum Corporation, Wichita Falls, Texas

**Teaching
Experience**

Technical Instructor, Halliburton Wireline and Perforating Training Center
January 1998 to August 2016

- Wellsite Log Interpretation (Open Hole Log Analysis)
- Operations Principles for LogIQ Quad-Combo tools (GTET, ACRT, DLLT/MSFL, DSNT/SDLT, BSAT and WSTT)
- Logging Operations for LogIQ Quad-Combo tools (GTET, ACRT, DLLT/MSFL, DSNT/SDLT, and BSAT)
- Measurement Physics for DITS Quad-Combo tools (NGRT, HRID, DLLT/MSFL, DSN-II/SDLT, SSS, BCDT, and FWST)
- Operations Principles for DITS Quad-Combo tools (NGRT, HRID, DLLT/MSFL, DSN-II/SDLT, SSS, BCDT, and FWST)
- Logging Operations for DITS Quad-Combo tools (NGRT, HRID, DLLT/MSFL, DSN-II/SDLT, SSS, BCDT, and FWST)
- Nuclear Magnetic Resonance Measurement Physics
- Borehole Imaging Processing
- Monopole/Dipole Acoustic Processing
- Introduction to Dipmeters and Imagers
- Fundamental Reservoir Properties
- Basic Petroleum Geology
- Open Hole Log Interpretation for Cased Hole Field Professionals

Laboratory Instructor in Honors Integrated Science, Texas Tech University
October 1995 to December 1995

Lecture Instructor in Physical Geology, Texas Tech University
September 1993 to May 1995

Laboratory Instructor in Physical Geology, Texas Tech University
September 1990 to July 1994 (multiple appointments)

Publications

Henderson, S. K., 2004, Nuclear magnetic resonance logging, in G. B. Asquith and D. A. Krygowski, Basic Well Log Analysis, second edition: American Association of Petroleum Geologists, Methods in Exploration 16, Tulsa, OK, p. 103-113.

Henderson, S. K., and G. B. Asquith, 1998, A petrophysical model for delta-front deposition in the Pennsylvanian Cross Cut sandstone, Runnels County, Texas, in W. C. Stephens, ed., Discovering tomorrow's paradigm: Transactions, A.A.P.G. Southwest Section Meeting, p. 102-111.

Henderson, S. K., and G. B. Asquith, 1998, A petrophysical model for delta-front deposition in the Pennsylvanian Cross Cut sandstone, Runnels County, Texas (ABSTRACT): American Association of Petroleum Geologists Bulletin, v. 82, p. 525.

Henderson, S. K., and G. B. Asquith, 1998, Effect of core-derived Archie parameters on water saturation calculations, Pennsylvanian Cross Cut sandstone, Runnels County, Texas (ABSTRACT): American Association of Petroleum Geologists Bulletin, v. 82 p. 526.

Henderson, S. K., 1995, Clay mineralogy and reservoir implications within the Pennsylvanian Cross Cut sandstone: TWP Field, Runnels County, west central Texas, in R. L. Martin, ed., In search of new Permian Basin oil and gas fields: Transactions, West Texas Geological Society Fall Symposium, W.T.G.S. Publication No. 95-98, p. 1-8.

Asquith, G. B., and S. K. Henderson, 1995, Computerized old E-log analysis of the Pennsylvanian Cross Cut sandstone in the TWP and Busher fields, Runnels County, Texas, in R. L. Martin, ed., In search of new Permian Basin oil and gas fields: Transactions, West Texas Geological Society Fall Symposium, W.T.G.S. Publication No. 95-98, p. 9-15.

Henderson, S. K., 1995, Subsurface investigation of the Pennsylvanian Cross Cut sandstone, TWP and Busher fields, Runnels County, Texas: unpublished Ph.D. dissertation, Texas Tech University, Lubbock, TX, 144 p.

Henderson, S. K., E. D. Lea, and G. B. Asquith, 1995, Spatial distribution of porosity and permeability in the San Andres Formation: Yoakum County, Texas, in P. H. Pausé and M. P. Candelaria, eds., Carbonate facies and sequence stratigraphy: Practical applications of carbonate models: Permian Basin Section, Society of Sedimentary Geology (S.E.P.M.) Publication No. 95-96, p. 51-64.

Henderson, S. K., 1994, The role of diagenetic studies in flow unit modeling: San Andres Formation, Yoakum County, Texas, in J. Ahlen, J. Peterson, and A. L. Bowsher, eds., Geologic activities in the 90s: Transactions, A.A.P.G. Southwest Section Meeting, New Mexico Bureau of Mines and Mineral Resources Bulletin No. 150, p. 89-96.

Henderson, S. K., 1994, The role of diagenetic studies in flow unit modeling: San Andres Formation, Yoakum County, Texas (ABSTRACT): American Association of Petroleum Geologists Bulletin, v. 78, p. 494.

Henderson, S. K., 1994, The role of diagenetic studies in flow unit modeling: San Andres Formation, Yoakum County, Texas (ABSTRACT): Transactions, West Texas Geological Society Fall Symposium, p. 42.

Thomerson, M. D., and S. K. Henderson, 1993, Diagenesis, morphology and reservoir implications of authigenic illite and chlorite in the Cherry Canyon sandstone, Delaware Mountain Group, Screwbean Field, Reeves County, Texas (POSTER): A.A.P.G. Mid-Continent Section Meeting, Amarillo, TX.

Thomerson, M. D., and S. K. Henderson, 1993, Composition, diagenesis, and morphology of chlorite and illite-smectite mixed-layer clays in the Cherry Canyon sandstone, Delaware Mountain Group, Screwbean Field, Reeves County, Texas (ABSTRACT): American Association of Petroleum Geologists Bulletin, v. 77, p. 1577.

Henderson, S. K., 1992, Deposition, diagenesis, and log responses of the Lower San Andres Formation, Reeves Field, Yoakum County, Texas: unpublished M.S. thesis, Texas Tech University, Lubbock, TX, 119 p.

**Halliburton
Training
Manuals**

Wellsite Log Interpretation for Field Professionals
Fundamentals of Open Hole Logging
LogIQ Array Compensated True Resistivity Tool (ACRT) Training Manual
LogIQ Spectral Density Logging Tool (SDLT) Training Manual
LogIQ Dual Spaced Neutron Tool (DSNT) Training Manual
DITS Spectral Density Logging Tool (SDLT) Training Manual
DITS Dual Spaced Neutron Tool (DSN-II) Training Manual
DITS Dual Laterolog/Micro-Spherically Focused Log (DLLT/MSFL) Training Manual
DITS High Resolution Induction (HRID) Training Manual
Log Presentation Format for Associate Field Professional School
Basic Petroleum Geology
Introduction to Six-Electrode Dipmeter and Resistivity Imagers

**Halliburton
e-Learning
Courses**

ACRT Part 1 – Measurement Principles and Receiver Signals
ACRT Part 2 – Downhole Signal Processing and Calibration
ACRT Part 3 – Skin-Effect Correction and Borehole Correction
ACRT Part 4 – Software Focusing and Final Results
Calibration Basics
GTET Gamma Ray Calibration
DLLT Calibration
MSFL Resistivity Calibration
MSFL Caliper Calibration
DSNT Calibration
SDLT Density Detectors Calibration
SDLT Caliper Calibration
The Basics of Resistivity
Conventional Resistivity Tools
Resistivity Tool Operating Environments
Resistivity Tool Environmental Corrections
Micro-Spherically Focused Log Measurement Principles
Dual Laterolog Tool Measurement Principles
Full Wave Sonic Waveform Measurement Principles
Acoustic Porosity Measurement Principles
Spectral Density Logging Tool Measurement Principles
High Resolution Induction Tool Measurement Principles
Digitally Focused Laterolog Measurement Principles
Spontaneous Potential Measurement Principles
Natural Gamma Ray Tool Measurement Principles

**Papers
Delivered**

A petrophysical model for delta-front deposition in the Pennsylvanian Cross Cut sandstone, Runnels County, Texas – presented at A.A.P.G. Southwest Section Meeting, Wichita Falls, TX, March 1998.

Clay mineralogy and reservoir implications within the Pennsylvanian Cross Cut sandstone, TWP Field, Runnels County, west central Texas = presented at W.T.G.S. Fall Symposium, Midland, TX, November 1995.

Computerized old E-log analysis of the Pennsylvanian Cross Cut sandstone in the TWP and Busher fields, Runnels County, Texas – presented by G. B. Asquith (principal author) at W.T.G.S. Fall Symposium, Midland, TX, November 1995.

Diagenesis, morphology, and reservoir implications of authigenic illite and chlorite in the Cherry Canyon sandstone, Delaware Mountain Group, Screwbean Field, Reeves County, Texas (POSTER) – presented by request at A.A.P.G. Southwest Section Meeting, Dallas, TX, June 1995.

Clay mineralogy and reservoir implications within the Pennsylvanian Cross Cut sandstone, TWP Field, Runnels County, west central Texas – presented at A.A.P.G. Southwest Section Meeting, Dallas, TX, June 1995.

Computerized old E-log analysis of the Pennsylvanian Cross Cut sandstone in the TWP and Busher Fields, Runnels County, Texas – presented by G. B. Asquith (principal author) at A.A.P.G. Southwest Section Meeting, Dallas, TX, June 1995.

Spatial distribution of porosity and permeability in the San Andres Formation: Yoakum County, Texas – presented at Permian Basin Section of S.E.P.M/P.B.G.C. James Lee Wilson Carbonate Symposium, Midland, TX, October 1994.

Diagenesis, morphology, and reservoir implications of authigenic illite and chlorite in the Cherry Canyon sandstone, Delaware Mountain Group, Screwbean Field, Reeves County, Texas (POSTER) – presented by request at W.T.G.S. Fall Symposium, Midland, TX, October 1994.

The role of diagenetic studies in flow unit modeling: San Andres Formation, Yoakum County, Texas – presented at A.A.P.G. Southwest Section Meeting, Ruidoso, NM, April 1994.

The role of diagenetic studies in flow unit modeling: San Andres Formation, Yoakum County, Texas – presented at W.T.G.S. Fall Symposium, Midland, TX, November 1993.

Diagenesis, morphology, and reservoir implications of authigenic illite and chlorite in the Cherry Canyon sandstone, Delaware Mountain Group, Screwbean Field, Reeves County, Texas (POSTER) – presented at A.A.P.G. Mid-Continent Section Meeting, Amarillo, TX, October 1993.

Invited Lectures Nuclear magnetic resonance logging – presented to A.A.P.G. Basic Well Log Analysis Short Course on the following dates:
May 16, 2008 – Austin, TX
July 27, 2007 – Austin, TX
August 17, 2006 – Austin, TX
August 12, 2005 – Austin, TX

August 8, 2003 – Austin, TX
August 10, 2001 – Austin, TX
March 9, 2000 – Richardson, TX

Introduction to nuclear magnetic resonance logging and MRIL Prime – presented to Advanced Petrophysics class, Texas Tech University, Lubbock, TX, March 24, 1999.

A petrophysical model for delta-front deposition in the Pennsylvanian Cross Cut sandstone, Runnels County, Texas – presented to Abilene Geological Society, Abilene, TX, January 18, 1996.

The role of diagenetic studies in flow unit modeling in the San Andres Formation, Yoakum County, Texas – presented to North Texas Geological Society, Wichita Falls, TX, March 16, 1995.

The role of diagenetic studies in flow unit modeling and initial research in spatial distribution of porosity and permeability in the San Andres Formation, Yoakum County, Texas – presented to Amarillo Chapter of Society of Professional Well Log Analysts, Amarillo, TX, February 23, 1995.

**Professional
Development**

Blended Learning Design – workshop presented by American Society for Training and Development, Fort Worth, TX, October 2012.

Advanced e-Learning Design – short course presented by American Society for Training and Development, Fort Worth, TX, October 2012.

Practical Applications of San Andres and Grayburg Reservoir Characterization – short course presented by Society of Petroleum Engineers and West Texas Geological Society, Midland, TX, May 1999.

Seven Habits of Highly Effective People – Stephen Covey Seminar, Fort Worth, TX, January 1998.

Instructional Techniques for New Instructors – Langevin Seminar, Dallas, TX, January 1998.

Logging & Perforating Open Hole Field Engineer Training – Halliburton Energy Services, Fort Worth, TX, October 1996.

Carbonate Development Geology – short course presented by American Association of Petroleum Geologists, Midland, TX, April 1991.

How to Evaluate Carbonate Reservoirs from Well Logs – short course presented by American Association of Petroleum Geologists, Lubbock, TX, March 1991.

Professional Service

Poster session judge for senior projects in petrophysics, Texas Tech University Geosciences Department, Lubbock, TX, May 2012, May 2013, May 2014, and May 2015.

Technical presentation judge, American Association of Petroleum Geologists Southwest Section Meeting, Fort Worth, TX, March 2003.

Affiliations

American Association of Petroleum Geologists
Division of Professional Affairs, American Association of Petroleum Geologists
Society of Petrophysicists and Well Log Analysts
Society for Sedimentary Geology (S.E.P.M.)

Awards

Halliburton MVP Award, December 2004, “for contribution to A.A.P.G. publication Basic Well Log Analysis, Second Edition.”