

Herbert Scott. Hamlin

Professional Summary

July 16, 2025

Business address: The University of Texas at Austin
Bureau of Economic Geology
10100 Burnet Rd., Bldg. 130
Austin, TX 78758
Telephone: (512) 475-9527
E-mail address: scott.hamlin@beg.utexas.edu

Professional Preparation

Academic Background

Ph.D. Geology, The University of Texas at Austin, December 1999

M.A. Geology, The University of Texas at Austin, December 1984

B.A. Anthropology, The University of Texas at Austin, December 1975

Professional Appointments

Research Scientist, Bureau of Economic Geology, The University of Texas at Austin (September 2015-Present)

Present Position: Research Associate, Bureau of Economic Geology, The University of Texas at Austin (September 2007 - Present). Regional stratigraphy and depositional system analysis using wireline logs and cores for applications in petroleum geology and hydrogeology.

Manager, three industry partnerships in the Wolfberry play of West Texas for STARR (State of Texas advanced oil and gas resource recovery project).

Principal Investigator, stratigraphy of Cretaceous aquifers in north-central Texas research project

Principal Investigator, stratigraphy of High Plains aquifers in West Texas research project.

Hydrologist, Texas Water Development Board (February 2004 - September 2007). Groundwater availability modeling program; creation of groundwater flow models of Texas aquifers; building of hydrogeologic conceptual models in preparation for numerical simulation.

Research Associate, Transgenomic, Inc., San Diego, California (2001 - 2003). Research and development of applications for automated biotech instrumentation.

Research Associate, Bureau of Economic Geology, The University of Texas at Austin (1983 - 2001). Investigation of petroleum resources in Texas, Wyoming, Australia, and Venezuela; characterization of unconventional energy resources (geothermal, low-permeability gas); determination of geologic controls on reservoir quality and recovery efficiency; modeling of groundwater flow and contaminant transport around salt domes.

Professional Registrations and Certificates

Professional Geoscientist License Number 10169, Texas Board of Professional Geoscientists

Theses

Depositional and groundwater flow systems of the Carrizo-Upper Wilcox in South Texas: Austin, Texas, The University of Texas at Austin, 143 p

Dissertations

Syn-orogenic slope and basin depositional systems, Ozona Sandstone, Val Verde Basin, Southwest Texas: Austin, Texas, The University of Texas at Austin, 135 p

Areas of Expertise

Areas of Expertise

GIS, geostatistics, relational databases

Hydrocarbon reservoir characterization and play analysis

Hydrogeology and groundwater flow modeling

Sedimentary geology, stratigraphy, basin analysis

Awards

Awards and Honorary Societies

Monroe G. Cheney Science Award, Southwest Section American Association of Petroleum Geologists, in recognition of contributions to petroleum geology in the Southwest Region, 2019

2017 Tinker Family BEG Publication Award for "Lithofacies of the Wolfcamp and lower Leonard intervals, southern Midland Basin, Texas":

The University of Texas at Austin, Bureau of Economic Geology Report of Investigations No. 281, 2017

Charles J. Mankin Memorial Award from the Association of American State Geologists for Bureau of Economic Geology Report of Investigations No. 277, Wolfberry (Wolfcampian-Leonardian) deep-water depositional systems in the Midland Basin: stratigraphy, lithofacies, reservoirs, and source rocks, 2014

A. L. Cox Best Poster, Southwest Section American Association of Petroleum Geologists, 2012

Service

External Committees Participation

Member, Alumni Council Committee, Jackson School of Geosciences, 2012 - 2015

Co-Technical Editor, Transactions, Gulf Coast Association of Geological Societies, 2012

Peer Reviewer, numerous papers, AAPG Bulletin, 2010 - 2012

Teaching and Advising

University Courses Taught

Using Electric Logs to Estimate Groundwater Salinity and Map Brackish Groundwater Resources in the Carrizo-Wilcox Aquifer in South Texas: presented to Bureau of Economic Geology, Austin, Texas, March 11, 2016.

Depositional and diagenetic controls on reservoir quality, Spraberry and Dean Sandstones, northern Midland Basin: presented to the Bureau of Economic Geology, Austin, Texas, May 2010.

Syn-orogenic slope and basin depositional systems, Ozona Sandstone, Val Verde Basin, Southwest Texas: presented to the Bureau of Economic Geology, Austin, Texas, July 2007.

Slope and basin-floor depositional systems, Ozona Sandstone, Val Verde Basin, Southwest Texas: presented to the Bureau of Economic Geology, Austin, Texas, April 1998.

Geologic controls on reservoir properties in a braid-delta sandstone, Tirrawarra Oil Field, South Australia: presented to the Bureau of Economic Geology, Austin, Texas, December 1993.

Stratigraphy of Canyon Sandstones, Val Verde Basin: presented to the Bureau of Economic

Geology, Austin, Texas, February 1993.

Frontier Formation stratigraphy and sandstone geometry, Green River Basin, Wyoming: presented to the Bureau of Economic Geology, Austin, Texas, November 1990.

Hydrocarbon production and potential of the distal Frio Formation, Texas Gulf Coast and offshore: presented to the Bureau of Economic Geology, Austin, Texas, January 1988.

Hydrogeology of Barbers Hill Salt Dome, Texas Coastal Plain: presented to the Bureau of Economic Geology, Austin, Texas, October 1986.

Depositional and ground-water flow systems of the Carrizo-Upper Wilcox in South Texas: presented to the Bureau of Economic Geology, Austin, Texas, October 1984.

Continuing Education Courses Taught

Wolfcamp Shale Core Workshop, Reagan County, Midland Basin, West Texas: presented to West Texas Geological Society, presented at 2018 Fall Symposium, Midland, Tex., September 27, 2018.

Geology and production aspects of a stratigraphically complex natural gas play, Canyon sandstone, Val Verde Basin, Texas: co-lecturer of technology transfer seminar sponsored by the Gas Research Institute and the West Texas Geological Society, Midland, Texas, 1994.

Geology of the Canyon sands tight gas reservoirs, Val Verde Basin: co-lecturer of short course presented to the Gas Research Institute and the Society of Petroleum Engineers, Canyon Sands Workshop, Midland, Texas, 1992.

Stratigraphy and diagenesis of Frontier Sandstone, Moxa Arch, western Green River Basin: co-lecturer of short course presented to the Gas Research Institute and the Society of Petroleum Engineers, Frontier Formation Workshop, Casper, Wyoming, 1992.

Geological overview of the Frontier Formation at the Enron South Hogsback Cooperative Well: co-lecturer of short course presented to Society of Petroleum Engineers/Gas Research Institute, Tight Gas Sands workshop, Denver, Colorado, April 1991.

Geology of the Frontier Formation, Moxa Arch, Green River Basin, Southwestern Wyoming: co-lecturer of short course presented to Gas Research Institute, Tight Gas Sands workshop, Austin, Texas, March 1990.

Field Trips Leadership

Co-leader, Fractures in the Frontier Formation, Wyoming Geological Association/American Association of Petroleum Geologists, Casper, Wyoming, September 12-19, 1992.

Co-leader, Frontier Formation and Grand Teton National Park, Gas Research Institute, Jackson Hole, Wyoming, June 27, 1990.

Student Committee Participation

Member, PhD Dissertation Committee, Li Liu, Integrated Study on the Sediment Provenance and Depositional Systems of Lower Permian Clastic Reservoirs in the Midland Basin, West Texas, The University of Texas at Austin, Austin, Tex., 2017

Member, M.A. Thesis Committee, Hanyue Zheng, Sedimentology and reservoir characterization of the Upper Pennsylvanian Cline Shale, Midland Basin, Texas, The University of Texas at Austin, Austin, Tex., 2016

Member, M.A. Thesis Committee, Reed Roush, Regional stratigraphic and core-based characterization of the Upper Pennsylvanian Cline Shale, Midland Basin and Eastern Shelf, The University of Texas at Austin, Austin, Texas, 2014

Member, M.S. Thesis Committee, Milton Cortez III, The University of Texas at Arlington, Geology, completed, 2012

Member, M.S. Thesis Committee, Rene Bernabe Ovalle-Rauch, The University of Texas at Arlington, Geology,, completed, 2012

Presentations

Invited Presentations

Chemical and Carbon Isotopic Gas Compositions from The Wolfcamp in Permian Basin and Their Geological Significance: presented to Goldschmidt Virtual 2020, presented at Unconventional Shale Reservoirs (08o), Virtual conference meeting, June 21-26, 2020.

Wolfberry and Wolfbone Resource Assessment: Outcrop and Core to Geocellular Models and Economic Outlooks: presented to West Texas Geological Society, presented at 2018 West Texas Geological Society Fall Symposium: A Decade of Shale, Midland, Tex., September 26-27, 2018.

Advances in Obtaining Optimum Well Results in Permian Basin Tight Oil Resource Plays: presented to American Business Conferences, presented at Permian Basin Frac Design & New Completions Technologies 2018, Houston, Tex., July 19-20, 2018.

Resource Assessment, Data, Analytics in Making Better Decisions: presented to American Business Conferences, presented at Horizontal Drilling Efficiency Congress, Houston, Tex., May 16-17, 2018.

Wolfberry Play Midland Basin: presented to South Texas Geological Society, San Antonio, Texas, April 8, 2015.

Wolfberry Play Midland Basin: presented to Austin Geological Society, Austin, Texas, March 2, 2015.

Presentations

Integrating lithofacies and chemofacies characterizations for the Permian Basin Wolfcamp XY and Third Bone Spring Formation, Delaware Basin, Texas: presented to American Association of Petroleum Geologists (AAPG-ACE), Denver, Colorado, October 2021.

Chemical and Carbon Isotopic Gas Compositions from The Wolfcamp in Midland Basin and Their Significance as Geochemical Tracers for Well Completion: presented to AEC 2020, presented at Theme 5: Permian Basin Unconventional Plays In Memory of Stephen C. Ruppel II, online Zoom meeting, September 29-October 1, 2020.

Continuous Development of Geologic Models for the Wolfcamp and Spraberry Formations, Southern Midland Basin, West Texas: presented at The American Association of Petroleum Geologists 2020 Annual Convention and Exhibition, Houston, Tex. (virtual), September 29-October 1, 2020.

Pennsylvanian-Leonardian Stratigraphic Architecture and Deformation History During and Post Late Paleozoic Orogenesis, East Delaware Basin, West Texas: presented at The American Association of Petroleum Geologists 2020 Annual Convention and Exhibition, Houston, Tex. (virtual), September 29-October 1, 2020.

Pore Size Distributions and Oil Storage Mechanism in The Wolfcamp Mudstone, Midland Basin: presented to AEC 2020, presented at Theme 5: Permian Basin Unconventional Plays In Memory of Stephen C. Ruppel II, online Zoom meeting, September 29-October 1, 2020.

New Engineering and Geologic Parameters to Predict Infill Well Performance in the Wolfcamp of the Delaware Basin: presented at Society of Petroleum Engineers/American Association of Petroleum Geologists/Society of Exploration of Geophysicists Unconventional Resources Technology Conference, online, July 2020.

Pore Connectivity, Porosity, Permeability, and Influence of TOC and Mineralogy in Shale: presented to MSRL members, presented at Mudrock Systems Research Laboratory Annual Meeting, Austin, TX, April 8-10, 2020.

Variability of Geologic Properties in Shale Gas and Tight Oil Plays: presented at Gulf Coast Association of Geological Societies, Houston, Tex., October 2019.

Shelf-to-basin architecture and depositional trends, Missourian-Wolfcampian strata of the Eastern Shelf of the southern Midland Basin, West Texas: presented at AAPG National Convention, San Antonio, Texas, May 21, 2019.

Stratigraphic and Facies Architecture of the Delaware Mountain Group, Delaware Basin: Implications for Disposal of Hydraulic Fracturing Wastewater: presented at American Association of Petroleum Geologists Annual Convention & Exhibition, San Antonio, Tex., May 2019.

Using electric logs to estimate salinity and map brackish groundwater resources in the Carrizo-Wilcox Aquifer in South Texas: presented at Gulf Coast Association of Geological Societies 65th Annual Convention, Houston, Texas, September 22, 2015.

Upper Pennsylvanian (Cline) cores from the Midland Basin: presented to Devon Energy, Austin, Texas, December 2013.

Northern Trinity/Woodbine groundwater availability model--final status update: presented to Groundwater Conservation Districts Technical Advisory Group, Cleburne, Texas, September 2013.

Wolfberry (Wolfcampian-Leonardian) deep-water depositional systems in the Midland Basin: stratigraphy, lithofacies, reservoirs, and source rocks: presented at BEG Research Symposium, Austin, Texas, September 2013.

Wolfberry (Wolfcampian-Leonardian) deep-water depositional systems in the Midland Basin: stratigraphy, lithofacies, reservoirs, and source rocks: presented to Permian Basin Section SEPM, Midland, Texas, March 2013.

Wolfberry oil play of West Texas: presented at Real Estate, Oil and Gas Conference, San Antonio, Texas, February 2013.

Update of the northern Trinity/Woodbine groundwater availability model--second status update: presented to Groundwater Conservation Districts Technical Advisory Group, Cleburne, Texas, October 2012.

Update of the northern Trinity/Woodbine groundwater availability model--first status update: presented to Groundwater Conservation Districts Technical Advisory Group, Cleburne, Texas, July 2012.

Wolfberry play Midland Basin: presented to Marathon Oil Company, Houston, Texas, May 2012.

Cores from the Wolfberry play, Midland Basin: presented at annual meeting of the Mudrocks Systems Research Laboratory,, Austin, Texas, March 2011.

Spraberry + Dean + Wolfcamp = Wolfberry play Midland Basin: presented at annual meeting of the Mudrocks Systems Research Laboratory, El Paso, Texas, March 2011.

Spraberry + Dean + Wolfcamp = Wolfberry play Midland Basin: presented at annual meeting of the Permian Basin Geological Synthesis Project, El Paso, Texas, October 2010.

Leonardian and Wolfcampian (Wolfberry) cores from the Midland Basin: presented to Chesapeake Energy, Austin, Texas, May 2010.

Spraberry and Dean cores from the Spraberry Trend, Midland Basin: presented to Pioneer Natural Resources, Austin, Texas, February 2010.

Pennsylvanian Smithwick Shale, south Fort Worth Basin: presented at the first meeting of the Mudrocks Systems Research Laboratory, Austin, Texas, January 2010.

Smithwick Shale cores, south Fort Worth Basin: presented at first meeting of the Mudrocks Systems Research Laboratory, Austin, Texas, January 2010.

Characterization of cores from the Spraberry Trend, Midland Basin: presented to Pioneer Natural Resources, Irving, Texas, December 2009.

Synorogenic slope and basin depositional systems, Ozona sandstone, Val Verde Basin, southwest Texas: presented at the monthly meeting of the Fort Worth Geological Society, Fort Worth, Texas, December 2009.

Depositional and diagenetic controls on reservoir quality, Spraberry and Dean Sandstones, northern Midland Basin: presented at the West Texas Geological Society Fall Symposium, Midland, Texas, October 2009.

Applications of Cores to Permian Basin Reservoir Characterization: presented at Southwest Section, American Association of Petroleum Geologists, Annual Meeting, Midland, Texas, April 25, 2009.

Applications of cores to Permian Basin reservoir characterization: presented at annual meeting of the Permian Basin Geological Synthesis Project, Austin, Texas, February 10, 2009.

Middle Permian (Spraberry, Clear Fork) slope and basin core facies, northern Midland Basin: presented at annual meeting of the Permian Basin Geological Synthesis Project, Austin, Texas, February 2009.

Gulf Coast aquifer, salt domes and water quality: presented at the Gulf Coast Irrigation Conference, Sinton, Texas, November 2008.

Barnett Shale, south Fort Worth Basin: integrating core descriptions and gamma-ray scans with downhole logs to create cross sections using Petra: presented at BEG Industry Day, Austin, Texas, April 2008.

Spraberry, Dean, Wolfberry clastic/carbonate basin-floor reservoirs Midland Basin: presented at annual meeting of the Permian Basin Geological Synthesis Project, Austin, Texas, February 2008.

Syn-orogenic slope and basin depositional systems, Ozona sandstone, Val Verde Basin, southwest Texas: presented at American Association of Petroleum Geologists, Southwest Section Meeting, Abilene, Texas, February 2008.

Status of the Spraberry/Dean study, Permian Basin Geological Synthesis Project: presented to Cimarex Energy Company, Austin, Texas, November 2007.

Automated spatial distribution of model parameters using customized GIS geoprocessing tools: presented to Groundwater Modeling Brown Bag Seminar, Austin, Texas, January 2007.

Salt domes in the Gulf Coast aquifer: presented at Aquifers of the Gulf Coast Conference, Corpus Christi, Texas, February 2006.

Hydrogeologic conceptual model of the central part of the Gulf Coast aquifer: presented to Groundwater Availability Modeling Stakeholders, Victoria, Texas, May 2005.

3-D Hydrogeologic conceptual model of the Edwards-Trinity (Plateau) aquifer: presented to Groundwater Availability Modeling Stakeholders, Ozona, Texas, July 2004.

Syn-Orogenic Slope and Basin Depositional Systems, Ozona Sandstone, Val Verde Basin, Southwest Texas, The University of Texas at Austin: presented to Department of Geological Sciences, GEO 193 Technical Sessions, Austin, Texas, February 1999.

Opposed passive- and active-margin slope and basin-floor depositional systems, Ozona Sandstone, Val Verde Basin, Southwest Texas: presented at American Association of Petroleum Geologists, Annual Convention, Salt Lake City, Utah, May 1998.

Characterization of a braid-delta sandstone reservoir, Tirrawarra Oil Field, South Australia: presented to Department of Geological Sciences, GEO 391 Reservoir Geology, The University of Texas at Austin, Austin, Texas, October 1997.

Canyon sandstones--a geologically complex natural gas play in slope and basin facies, Val Verde Basin, Southwest Texas: presented to the South Texas Geological Society, San Antonio, Texas, October 1996.

Geologically complex gas reservoirs in slope and basin facies, Canyon sandstones, Val Verde Basin, Southwest Texas: presented at American Institute of Professional Geologists Annual Convention, Norman, Oklahoma, October 1995.

Geologically complex gas reservoirs in slope and basin facies, Canyon sandstones, Val Verde Basin, Southwest Texas: presented to the Society of Independent Professional Earth Scientists, Austin, Texas, October 1994.

Geologically complex gas reservoirs in slope and basin facies, Canyon sandstones, Val Verde Basin, Southwest Texas: presented to the Houston Geological Society, Houston, Texas, September 1994.

Resource optimization through facies-based characterization of a braid-delta sandstone reservoir, Tirrawarra Oil Field, Cooper Basin, South Australia: presented at American Association of Petroleum Geologists, Annual Convention, Denver, Colorado, June 1994.

Geology of Canyon sands tight-gas reservoirs, Val Verde Basin: presented to the North Texas Geological Society, Wichita Falls, Texas, November 1993.

Low-permeability gas reservoirs of the Frontier Formation, Western Green River Basin, Wyoming: presented at SEPM (Society for Sedimentary Geology) Theme Meeting, Fort Collins, Colorado, August 1992.

Frontier Formation stratigraphy and depositional systems architecture, Green River Basin, Wyoming: presented at American Association of Petroleum Geologists Annual Convention, Calgary, Canada, June 1992.

Stratigraphy and diagenesis of Sonora Canyon deep-water sandstones, Val Verde Basin, Southwest Texas: presented at American Association of Petroleum Geologists, Southwest Section Meeting, Midland, Texas, April 1992.

Facies-related permeability trends in the Frontier Formation along the Moxa Arch, Green River Basin, Wyoming: presented at American Association of Petroleum Geologists, Rocky Mountain Section Meeting, Denver, Colorado, September 1990.

Co-location of heavy oil and geopressured-geothermal brine resources, examples from South Texas and Kern County, California: presented at Industrial Consortium for the Utilization of the Geopressured-Geothermal Resource, Austin, Texas, January 1990.

Hydrocarbon production and potential of the distal Frio Formation, Texas Gulf Coast and offshore: presented at Minerals Management Service, U.S. Department of the Interior, Second Continental Margins Symposium, Austin, Texas, May 1989.

Hydrocarbon production and potential of the distal Frio Formation, Texas Gulf Coast and offshore: presented at American Association of Petroleum Geologists Annual Convention, Houston, Texas, March 1988.

Hydrogeology of Barbers Hill Salt Dome, Texas Coastal Plain: presented at Geological Society of America Annual Meeting, San Antonio, Texas, November 1986.

Fluvial depositional systems of the Carrizo-Upper Wilcox in South Texas: presented to Houston Geological Society, Houston, Texas, April 1984.

Fluvial depositional systems of the Carrizo-Upper Wilcox in South Texas: presented at Gulf Coast Association of Geological Societies, Annual Convention, Jackson, Mississippi, October 1983.

Carrizo-Upper Wilcox Depositional Systems and Their Relation to Updip Oil Production in South Texas: presented to South Texas Geological Society, San Antonio, Texas, May 1983.

Activities of a Professional Nature

Professional Societies

Geological Society of America

Society of Sedimentary Geology

Program and Project Management

Principal Investigator, Develop groundwater availability model of the High Plains Aquifer system, 2012-2014

Principal Investigator, Update of groundwater availability model of the Northern Trinity and Woodbine aquifers, 2012-2014

Funding

Research Support

Principal Investigator: Horizontal Wells Near Wellbore Facies, Total E&P Services (December 7, 2018-December 31, 2019; \$158,000).

Principal Investigator: Intera - STEER - Hamlin, Intera Inc. (December 15, 2015-June 30, 2016; \$22,300).

Principal Investigator: High Plains aquifer hydrostratigraphy and recharge in support of groundwater availability modeling, Texas Water Development Board (March 1, 2013-January 31, 2014, \$325,000).

Principal Investigator: Northern Trinity and Woodbine aquifers hydrostratigraphy and recharge in support of groundwater availability modeling, Groundwater Conservation Districts in Groundwater Management Area 8 (February 1, 2012-January 31, 2014, \$298,000).

Publications

Peer Reviewed Authored Books

Hentz, T. F., Ambrose, W. A., and Hamlin, H. S., 2017, Upper Pennsylvanian and Lower Permian shelf-to-basin facies architecture and trends, Eastern Shelf of the southern Midland Basin, West Texas: Bureau of Economic Geology, Report of Investigations, no. 282, 68 p.

Baumgardner, R. W., Jr., Hamlin, H. S., and Rowe, H. D., 2016, Lithofacies of the Wolfcamp and lower Leonard intervals, southern Midland Basin, Texas: Bureau of Economic Geology, Report of Investigations, no. 281, 67 p.

Hamlin, H. S., and Baumgardner, R. W., Jr., 2012, Wolfberry (Wolfcampian-Leonardian) deep-water depositional systems in the Midland Basin: stratigraphy, lithofacies, reservoirs, and source rocks: The University of Texas at Austin, Bureau of Economic Geology, Report of Investigations, no. 277, 62 p.

Peer Reviewed Journal Articles

Peng, J., Milliken, K., Fu, Q., Janson, X., and Hamlin, H. S., 2020, Grain assemblages and diagenesis in organic-rich mudrocks, Upper Pennsylvanian Cline shale (Wolfcamp D), Midland Basin, Texas: AAPG Bulletin, v. 104, no. 7, p. 1593-1624, <http://doi.org/10.1306/03022018240>.

Gherabati, S. A., Hamlin, H. S., Smye, K. M., Eastwood, R. L., Male, F. R., and McDaid, G., 2019, Evaluating hydrocarbon-in-place and recovery factor in a hybrid petroleum system: case of Bakken and Three Forks in North Dakota: Interpretation, v. 7, no. 3, p. T607-T624, <http://doi.org/10.1190/INT-2018-0213.1>.

Smye, K. M., Hamlin, H. S., Eastwood, R., and McDaid, G., 2019, Variability of geologic properties in shale gas and tight oil plays: GCAGS Journal, v. 8, p. 191-209.

Hamlin, H. S., and de la Rocha, L., 2015, Using electric logs to estimate groundwater salinity

and map brackish groundwater resources in the Carrizo-Wilcox Aquifer in South Texas: GCAGS Journal, v. 4, p. 109-131.

Hammes, Ursula, Hamlin, H. S., and Ewing, T. E., 2013, Geologic analysis of the Upper Jurassic Haynesville Shale in east Texas and west Louisiana: Reply: AAPG Bulletin, v. 97, no. 3, p. 529.

Hammes, U., Hamlin, H. S., and Ewing, T. E., 2011, Geologic analysis of the Upper Jurassic Haynesville Shale in east Texas and west Louisiana: AAPG Bulletin v. 95, no. 10, p. 1643-1666.

Hamlin, H. S., 2009, Ozona sandstone, Val Verde Basin, Texas: synorogenic stratigraphy and depositional history in a Permian foredeep basin: AAPG Bulletin, v. 93, no. 5, p. 573-594.

Dutton, S. P., Hamlin, H. S., Folk, R. L., and Clift, S. J., 1996, Early siderite cementation as a control on reservoir quality in submarine fan sandstones, Sonora Canyon gas play, Val Verde Basin, Texas, in *Siliciclastic diagenesis and fluid flow: concepts and applications*: SEPM (Society for Sedimentary Geology), Special Publication No. 55, p. 115-127.

Hamlin, H. S., 1996, Frontier Formation stratigraphy on the Moxa Arch, Green River Basin, Wyoming: *The Mountain Geologist*, v. 33, no. 2, p. 35-44.

Hamlin, H. S., Dutton, S. P., Seggie, Robert, and Tyler, Noel, 1996, Depositional controls on reservoir properties in a braid-delta sandstone, Tirrawarra oil field, South Australia: AAPG Bulletin, v. 80, no. 2, p. 139-156.

Marin, B. A., Clift, S. J., Hamlin, H. S., and Laubach, S. E., 1993, Natural fractures in Sonora Canyon sandstones, Sonora and Sawyer fields, Sutton County, Texas: Society of Petroleum Engineers, Paper No. SPE 25895, p. 523-531.

Peer Reviewed Book Chapters

Fu, Q., Baumgardner, R. W., Jr., and Hamlin, H. S., 2020, Early Permian (Wolfcampian) succession in the Permian Basin: icehouse platform, slope carbonates, and basinal mudrocks, in Ruppel, S. C., ed., *Anatomy of a Paleozoic basin: the Permian Basin, USA*: The University of Texas at Austin, Bureau of Economic Geology Report of Investigations 285; AAPG Memoir 118, v. 2, p. 185-226, <http://doi.org/0.23867/RI0285-1>.

Non Peer Reviewed Authored Books

Dutton, S. P., Hamlin, H. S., and Laubach, S. E., 1995, Geologic controls on reservoir properties of low-permeability sandstone, Frontier Formation, Moxa Arch, southwestern Wyoming: The University of Texas at Austin, Bureau of Economic Geology, Report of Investigations, no. 234, 89 p.

Hamlin, H. S., Clift, S. J., Dutton, S. P., Hentz, T. F., and Laubach, S. E., 1995, Canyon sandstones--a geologically complex natural gas play in slope and basin facies, Val Verde Basin, southwest Texas: The University of Texas at Austin, Bureau of Economic Geology, Report of Investigations, no. 232, 74 p.

Hamlin, H. S., Dutton, S. P., Seggie, Robert, Tyler, Noel, and Yeh, J. S., 1995, Flow-unit characterization and recovery optimization of a braid-delta sandstone reservoir, Tirrawarra oil field, South Australia: The University of Texas at Austin, Bureau of Economic Geology, Report of Investigations, no. 231, 44 p.

Dutton, S. P., Clift, S. J., Hamilton, D. S., Hamlin, H. S., Hentz, T. F., Howard, W. E., Akhter, M. S., and Laubach, S. E., 1993, Major low-permeability-sandstone gas reservoirs in the continental United States: The University of Texas at Austin, Bureau of Economic Geology, Report of Investigations, no. 211, 221 p.

Hamlin, H. S., 1988, Depositional and ground-water flow systems of the Carrizo-Upper Wilcox, South Texas: The University of Texas at Austin, Bureau of Economic Geology, Report of Investigations, no. 175, 61 p.

Hamlin, H. S., Smith, D. A., and Akhter, M. S., 1988, Hydrogeology of Barbers Hill salt dome, Texas Coastal Plain: The University of Texas at Austin, Bureau of Economic Geology, Report of Investigations, no. 176, 41 p.

Non Peer Reviewed Journal Articles

Gherabati, S. A., Smye, K. M., McDaid, G., and Hamlin, S., 2020, New engineering and geologic parameters to predict infill well performance in the Wolfcamp of the Delaware Basin: Society of Petroleum Engineers/American Association of Petroleum Geologists/Society of Exploration Geophysicists, Proceedings, Unconventional Resources Technology Conference, Austin, Tex., July 20-22, no. 3077, 13 p., <http://doi.org/10.15530/urtec-2020-3077>.

Hentz, T. F., Ambrose, W. A., and Hamlin, H. S., 2016, Upper Pennsylvanian and Lower Permian shelf-to-basin facies architecture and trends, Eastern Shelf of the southern Midland Basin, West Texas: AAPG Search and Discovery, no. 10847, 6 p.

Hamlin, H. S., and Baumgardner, R. W., Jr., 2012, Wolfberry play, Midland Basin, West Texas: AAPG Search and Discovery Article #10419.

Hammes, U., Hamlin, H. S., and Eastwood, R., 2010, Facies characteristics, depositional environments, and petrophysical characteristics of the Haynesville and Bossier shale-gas plays of East Texas and northwest Louisiana: Houston Geological Society Bulletin, p. 59-63.

Knox, P. R., Young, S. C., Hamlin, H. S., Baker, E. T., Jr., Kalboush, R. A., and Budge, T., 2010, Heterogeneity of the Gulf Coast aquifer, Brazos River to Rio Grande, Texas: Gulf Coast Association of Geological Societies Transactions, v. 60, p. 379-399.

Hamlin, H. S., 2009, Gros Ventre range, in Laubach, S. E., and Tinker, S. W., eds., 2009, Earth's art: celebrating the Centennial of the Bureau of Economic Geology, 1909-2009: The University of Texas at Austin, Bureau of Economic Geology, p. 94-95.

Knox, P. R., Deeds, Neil, Hamlin, H. S., and Kelley, V. C., 2009, Geology, structure, and depositional history of the Yegua-Jackson aquifers, in Hutchison, W. R., Davidson, S. C., Brown, B. J., and Mace, R. E., eds., Aquifers of the upper coastal plains of Texas: Texas Water Development Board Report 374, p. 117-145.

Knox, P. R., Kelley, V. C., and Hamlin, H. S., 2007, Creating the framework for a new aquifer: the Yegua-Jackson of the Texas Gulf Coastal Plain: Gulf Coast Association of Geological Societies Transactions, v. 57, p. 439-450.

Hamlin, H. S., 2006, Salt domes in the Gulf Coast aquifer, in Mace R. E., Davidson, S. C., Angle, E. S., and Mullican, W. F., III, eds., Aquifers of the Gulf Coast of Texas: Texas Water Development Board Report 365, p. 217-230.

Tyler, Roger, Clift, S. J., Dutton, S. P., Hamlin, H. S., Holtz, M. H., Major, R. P., Vining, M. R., and Yang, Wan, 1998, State of Texas Advanced Resource Recovery Program: Project STARR, in Stephens, W. C., ed., American Association of Petroleum Geologists, Southwest Section Convention Transactions and Abstracts: p. 133-138.

Tyler, Roger, Hamlin, H. S., Clift, S. J., Holtz, M. H., Dutton, S. P., and Yang, Wan, 1998, Reservoir characterization and the State of Texas Advanced Oil and Gas Resource Recovery Program, in DeMis, W. D., and Nelis, M. K., eds., The search continues into the 21st century: West Texas Geological Society, Publication 98-105, p. 167-172.

Tyler, Roger, Major, R. P., Hamlin, H. S., Holtz, M. H., Dutton, S. P., and Vining, M. R., 1998, Project STARR--State of Texas Advanced Oil and Gas Resource Recovery Program, in Matthews, C. R., Chairman, Regional Technology Transfer Conference, April 8, Houston, Texas: Railroad Commission of Texas, variously paginated.

Tyler, Roger, Major, R. P., Hamlin, H. S., Holtz, M. H., Dutton, S. P., and Vining, M. R., 1998, Project STARR--State of Texas Advanced Oil and Gas Resource Recovery Program, in Matthews, C. R., Chairman, Regional Technology Transfer Conference, May 13, Midland,

Texas: Railroad Commission of Texas, variously paginated.

Tyler, Roger, Major, R. P., Hamlin, H. S., Holtz, M. H., Dutton, S. P., and Vining, M. R., 1997, Project STARR--State of Texas Advanced Oil and Gas Resource Recovery Program: Gulf Coast Association of Geological Societies Transactions, v. 47, p. 595-597.

Laubach, S. E., and Hamlin, H. S., 1994, Geological analyses of tight gas sandstones: Canyon Sandstone: In Focus--Tight Gas Sands, v. 10, no. 1, p. 35-38.

Seggie, Robert, Lansom, Peter, Hamlin, H. S., and Johnson, G. A., 1994, The Tirrawarra oil field: field revitalisation through reservoir description and characterisation: Australian Petroleum Exploration Association Journal, v. 34, p. 33-54.

Dutton, S. P., and Hamlin, H. S., 1992, Interaction of burial history and diagenesis of the Upper Cretaceous Frontier Formation, Moxa Arch, Green River Basin, Wyoming, in Mullen, C. E., ed., Rediscover the Rockies: Wyoming Geological Association, Forty-Third Field Conference Guidebook, p. 37-50.

Dutton, S. P., Hamlin, H. S., and Laubach, S. E., 1992, Geological analysis of the Frontier Formation, in CER Corporation, ed., Staged field experiment no. 4: application of advanced technologies in tight gas sandstones--Frontier Formation, Chimney Butte field, Sublette County, Wyoming: CER Corporation, report prepared for the Gas Research Institute under contract report no. GRI-92/0394, p. 25-51.

Hamlin, H. S., Clift, S. J., and Dutton, S. P., 1992, Stratigraphy and diagenesis of Sonora Canyon deep-water sandstones, Val Verde Basin, Southwest Texas, in Cromwell, D. W., Moussa, M. T., and Mazzullo, L. J., eds., Transactions: American Association of Petroleum Geologists, Southwest Section, Publication No. SWS 92-90, p. 209-220.

Hamlin, H. S., Miller, William, Peterson, Richard, and Wiltgen, Nick, 1992, Results of applied research in the Canyon sands, Val Verde Basin, southwest Texas, in In focus--tight gas sands: Gas Research Institute, v. 8, no. 1, p. 1-32.

Dutton, S. P., and Hamlin, H. S., 1991, Geologic controls on reservoir properties of Frontier Formation low-permeability gas reservoirs, Moxa Arch, Wyoming: Society of Petroleum Engineers, Paper No. SPE 21851, p. 479-488.

Hamlin, H. S., 1990, Hydrocarbon production and exploration potential of the distal Frio Formation, Texas Gulf Coast and offshore, in Hunt, M. C., Doenges, S. V., and Stubbs, G. S., eds., Studies related to continental margins--a summary of year-three and year-four activities: sponsored by Minerals Management Service, U.S. Department of the Interior, and Continental Margins Committee, Association of American State Geologists, Proceedings, p. 61-73.

Hamlin, H. S., Walter, T. G., and Kreitler, C. W., 1990, Colocation of heavy oil and geopressured-geothermal brine resources, examples from South Texas and Kern County, California, in Negus-de Wys, J., ed., Proceedings of the First Meeting of the Industrial Consortium for the Utilization of the Geopressured-Geothermal Resource: Idaho Falls, Idaho, EG&G Idaho, Inc., p. 17-55.

Seni, S. J., Kreitler, C. W., Mullican, W. F., III, and Hamlin, H. S., 1985, Utilization of salt domes for chemical-waste disposal, in Smerdon, E. T., and Jordan, W. R., eds., Issues in groundwater management: Center for Research in Water Resources, Water Resources Symposium No. 12, p. 419-460.

Hamlin, H. S., 1983, Carrizo-Upper Wilcox depositional systems and their relation to updip oil production in South Texas: South Texas Geological Society Bulletin, v. 23, no. 9, p. 17-26.

Hamlin, H. S., 1983, Fluvial depositional systems of the Carrizo-Upper Wilcox in South Texas: Gulf Coast Association of Geological Societies Transactions, v. 33, p. 281-287.

Weise, B. R., Allie, A. D., Bebout, D. G., Edwards, M. B., Gregory, A. Ray, Hamlin, H. S., and Lockley, J. L., 1980, Prospect areas for testing entrained methane resources in the shallow

geopressured and deep hydro pressured zones, Texas Gulf Coast, in Dorfman, M. H., and Fisher, W. L., eds., Proceedings, Fourth U.S. Gulf Coast Geopressured-Geothermal Energy Conference: The University of Texas at Austin, Center for Energy Studies, v. 1, p. 474-514.

Non Peer Reviewed Book Chapters

Dutton, S. P., Hamlin, H. S., and Laubach, S. E., 1992, Geological analysis of the Frontier Formation, in in CER Corporation, ed., Staged field experiment no. 4: application of advanced technologies in tight gas sandstones--Frontier Formation, Chimney Butte field, Sublette County, Wyoming: CER Corporation, prepared for the Gas Research Institute, contract report no. GRI-92/0394, p. 25-90.

Laubach, S. E., and Hamlin, H. S., 1992, Stop No. 1--East-facing sandstone flatiron, SW SE section 35, T. 24N, R. 116W, between Wheat and West Willow Creeks and Stop No. 4--Fractures in the Frontier Formation, in Sundell, K. A., and Anderson, T. C., eds., Road log volume for Rediscover the Rockies: Wyoming Geological Association, AAPG-SEPM-EMD Rocky Mountain Section Meeting, p. 111-112 and p. 105-107.

Hamlin, H. S., 1986, Texas coastal salt domes: stratigraphic and structural interrelationships, in in Seni, S. J., and Kyle, J. R., eds., Comparison of cap rocks, mineral resources, and surface features of salt domes in the Houston diapir province: Field Trip Guidebook, prepared for Geological Society of America, 1986 Annual Meeting, San Antonio, Texas: The University of Texas at Austin, Bureau of Economic Geology, p. 27-42.

Non Peer Reviewed Atlases and Maps

Kosters, E. C., Bebout, D. G., Brown, L. F., Jr., Dutton, S. P., Finley, R. J., Garrett, C. M., Jr., Hamlin, H. S., Ruppel, S. C., Seni, S. J., and Tyler, Noel, 1989, Atlas of major Texas gas reservoirs: The University of Texas at Austin, Bureau of Economic Geology, Special Publication, 161 p.

Conference Proceedings

Dommissse, R., Male, F., Hamlin, H. S., and Sivila, L., 2018, The Value of Building a Multiscale, Regional Geomodel for Reserves Assessment of the Midland Basin, <https://library.seg.org/doi/ref/10.15530/urtec-2018-2902841>, Unconventional Resources Technology Conference, Houston, Tex., 11 p.

Gherabati, A., Male, F., Hamlin, H. S., Smye, K. G., Walsh, M., Ikonnikova, S., McDaid, G., and Lemons, C., 2017, Evaluating hydrocarbon-in-place and recovery factor in a hybrid petroleum system: case of Bakken and Three Forks in North Dakota, Unconventional Resources Technology (URTeC) Conference, Austin, Tex., 24-26 July, 15 p.

Hamlin, H. S., Smye, K. G., Dommissse, R., Lemons, C., McDaid, G., and Eastwood, R., 2017, Geology and petrophysics of the Bakken Unconventional Petroleum System, Unconventional Resources Technology (URTeC) Conference, Austin, Tex., 24-26 July, 14 p.

Zheng, H., and Hamlin, H. S., 2016, Stratigraphic cyclicity and reservoir potential of Upper Pennsylvanian Cline Shale, Midland Basin, Texas, Unconventional Resources Technology Conference, no. 2459908, San Antonio, Texas, 11 p.

Contract Reports

Gale, J. F. W., Baumgardner, R., Bhandari, A., Darvari, R., Dommissse, R., Eichhubl, P., Elliott, S. J., Fall, A., Flemings, P., Hamlin, H. S., Landry, C. J., Mohanty, K., Nicot, J.-P., Polito, P., Prodanovic, M., Ramiro-Ramirez, S., Reed, R. M., Rowe, H., Ruppel, S. C., and Sivil, J. E., 2019, Multi-faceted study of water cut in the Permian Wolfcamp in the Delaware Basin, West Texas: final report prepared for Shell, under contract no. UT OSP# 201503146-001, 292 p.

Hamlin, H. S., Scanlon, B. R., Reedy, R. C., Banerji, D., Young, S. C., Jigmond, M., and Harding, J. H., 2017, Fresh, Brackish, and Saline Groundwater Resources in the Carrizo-Wilcox, Queen City and Sparta Aquifers in Groundwater Management Area 13--Location, Quantification,

Producibility, and Impacts: Bureau of Economic Geology, Contract Report prepared for Texas Water Development Board, 388 p.

Laughlin, K., Fleischhauer, L., Wise, M., Hamlin, H. S., Banerji, D., and Beach, J., 2017, Identification of potential brackish groundwater production areas--Nacatoch Aquifer: Final Report prepared for Texas Water Development Board, under contract no. 1600011952, 165 p.

Hamlin, H. S., Scanlon, B. R., Reedy, R. C., Young, S. C., and Jigmond, M., 2016, Fresh, Brackish, and Saline Groundwater Resources in the Carrizo-Wilcox Aquifer in Groundwater Management Area 13--Location, Quantification, Producibility, and Impacts: Bureau of Economic Geology, Contract Report prepared for Texas Water Development Board, 224 p.

Hosseini, S. A., Nicot, J.-P., Darvari, R., Costley, R., Lu, J., Sava, D., Goudarzi, A., Mickler, P., Banerji, D., Uhlman, K., Walden, S., Hentz, T. F., Hamlin, H. S., Ganjdanesh, R., Sun, A. Y., Hovorka, S. D., and Scanlon, B. R., 2016, Pressure management and plume control strategies through a brine extraction storage test at the Devine Test Site in Texas, Phase I: Bureau of Economic Geology, The University of Texas at Austin, Topical Report prepared for DOE NETL, under contract no. DE-FE0026137, 157 p.

Hentz, T. F., Baumgardner, R. W., Jr., Hamlin, H. S., and Breton, C., 2015, Subsurface oil-shale samples of the Lower Permian Wolfcampian and Lower Leonardian mudrocks and upper Leonardian Spraberry Formation, Midland Basin, West Texas: Core sampling for measured vitrinite-reflectance (Ro) determination: The University of Texas at Austin, Bureau of Economic Geology, annual technical report prepared for NCRDS State Cooperative Program, under contract no. 02ERAG0006, 16 p.

Ambrose, W. A., Smith, D. C., Cutright, B. L., Scanlon, B. R., Reedy, R. C., Elliott, B. A., Paine, J. G., Foss, M. M., Tremblay, T. A., Wolaver, B. D., Loucks, R. G., Frébourg, G., Hentz, T. F., Ogiesoba, O. C., Olariu, M. I., Fu, Q., Zeng, H., E. L. Frost, III, Hamlin, H. S., Nance, H. S., Duncan, I. J., Hammes, U., Rogers, H., Clift, S. J., Sivil, J. E., Zhang, T., Reed, R. M., Baumgardner, R. W., Jr., Eastwood, R., Breton, C., Rowe, H. D., Carr, D. L., Dunlap, D. B., Gale, J. F. W., and Peng, S., 2014, State of Texas Advanced Resource Recovery (STARR) progress report: Bureau of Economic Geology, Biennium prepared for Texas State Comptroller of Public Accounts, 90 p.

Hamlin, H. S., 2014, Updated groundwater availability model of the Northern Trinity and Woodbine aquifers: Final Report prepared for Groundwater Conservation Districts of GMA 8.

Hentz, T. F., Hamlin, H. S., and Breton, C., 2012, Subsurface gas-shale samples of the Lower Pennsylvanian Smithwick Shale, Fort Worth Basin, North Texas: core sampling for measured vitrinite-reflectance (Ro) determination: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for prepared for NCRDS State Cooperative Program, 7 p p.

Tyler, Roger, Alvarez, Regulo, Ambrose, W. A., Asquith, G. B., Barba, R. E., Jr., Card, C. C., Chirinos, Belkis, Dunlap, D. B., Dutton, S. P., Grabowski, Janusz, Gu, Yaguang, Hamilton, D. S., Hamlin, H. S., Holtz, M. H., Mendoza, Rafael, Paulis, J. B., Remington, R. L., Rodgers, Scott D., Romero, M. L., Scott, A. R., Sparlin, M. A., Yeh, J. S., and Zeng, Hongliu, 1999, Reservoir characterization, simulation, and exploitation planning for the Eocene "B" sands: Mioceno Norte Area, Lake Maracaibo, Venezuela: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for PDVSA Exploración y Producción Division de Occidente Venezuela, under Agreement No. 21-E-264, variously paginated, + apps. (12 vols.).

Dickerson, P. W., Hamlin, H. S., Hentz, T. F., and Laubach, S. E., 1995, Regional domains of the Wilcox Lobo natural gas trend, South Texas: The University of Texas at Austin, Bureau of Economic Geology, topical report prepared for Gas Research Institute, under contract no. 5082-211-0708 (GRI 95/0027), 49 p.

Laubach, S. E., Clift, S. J., Hamlin, H. S., Dutton, S. P., Hentz, T. F., Baek, Hwanjo, and Marin, B. A., 1994, Geology of a stratigraphically complex natural gas play: Canyon sandstones, Val Verde Basin, southwest Texas: The University of Texas at Austin, Bureau of Economic Geology,

topical report prepared for the Gas Research Institute, under contract no. 5082-211-0708, GRI-94/0167, 135 p.

Dutton, S. P., Clift, S. J., Hamilton, D. S., Hamlin, H. S., Hentz, T. F., Howard, W. E., Akhter, M. S., and Laubach, S. E., 1993, Atlas of major low-permeability sandstone gas reservoirs in the continental United States: The University of Texas at Austin, Bureau of Economic Geology, topical report prepared for the Gas Research Institute, under contract no. 5082-211-0708, 460 p.

Tyler, Noel, Hamlin, H. S., Dutton, S. P., Hardage, B. A., Yeh, J. S., Seggie, Robert, Lansom, Peter, and Asquith, G. B., 1993, Strategies for reserve growth in Tirrawarra field: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for Santos, Ltd., Adelaide, South Australia, 383 p. + app.

Dutton, S. P., Hamlin, H. S., and Laubach, S. E., 1992, Geologic controls on reservoir properties of low-permeability sandstone, Frontier Formation, Moxa Arch, southwest Wyoming: The University of Texas at Austin, Bureau of Economic Geology, topical report prepared for the Gas Research Institute, under contract no. 5082-211-0708, 199 p.

Hamlin, H. S., 1991, Stratigraphy and depositional systems of the Frontier Formation and their controls on reservoir development, Moxa Arch, Southwest Wyoming: The University of Texas at Austin, Bureau of Economic Geology, topical report prepared for the Gas Research Institute, under contract no. GRI-91/0128, 45 p.

Kreitler, C. W., Capuano, R. M., Akhter, M. S., Hamlin, H. S., Erwin, M. El., and Walter, T. G., 1990, Consolidation of geologic studies of geopressed geothermal resources in Texas: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for the U.S. Department of Energy, Advanced Technologies Division, under Cooperative Agreement No. DE-FC07-85NV10412, 115 p.

Laubach, S. E., Hamlin, H. S., Buehring, R., Baumgardner, R. W., Jr., and Monson, E. R., 1990, Application of borehole-imaging logs to geologic analysis, Cotton Valley Group and Travis Peak Formation, GRI Staged Field Experiment Wells, East Texas: The University of Texas at Austin, Bureau of Economic Geology, topical report prepared for the Gas Research Institute, under contract no. 5082-211-0708, 115 p.

Light, M. P. R., and Hamlin, H. S., 1989, Consolidation of geologic studies of geopressed-geothermal resources in Texas: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for the U.S. Department of Energy, Advanced Technologies Division, under contract no. DE-FC07-85NV10412, 28 p.

Hamlin, H. S., and Tyler, Noel, 1988, Consolidation of geologic studies of geopressed-geothermal resources in Texas: The University of Texas at Austin, Bureau of Economic Geology, annual report prepared for the U.S. Department of Energy, Advanced Technologies Division, under contract no. DE-FC07- 85NV10412, 45 p.

Seni, S. J., Hamlin, H. S., and Walter, T. G., 1987, Hydrocarbon production and potential of the distal Frio Formation, Texas Coastal Zone and shelf: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for the Minerals Management Service, under agreement no. 14-12-0001-30296, 84 p.

Seni, S. J., Collins, E. W., Hamlin, H. S., Mullican, W. F., III, and Smith, D. A., 1985, Phase III: Examination of Texas salt domes as potential sites for permanent storage of toxic chemical waste: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for the Texas Water Commission, under contract no. IAC(84-85)-2203, 310 p.

Seni, S. J., Hamlin, H. S., and Mullican, W. F., III, 1984, Technical issues for chemical waste isolation in solution-mined caverns in salt domes: The University of Texas at Austin, Bureau of Economic Geology, report prepared for Texas Department of Water Resources, under interagency contract no. IAC(84-85)-1019, 8 p..

Seni, S. J., Mullican, W. F., III, and Hamlin, H. S., 1984, Texas salt domes: aspects affecting disposal of toxic-chemical waste in solution-mined caverns: The University of Texas at Austin, Bureau of Economic Geology, report prepared for Texas Department of Water Resources, under contract no. IAC(84-85)-1019, 94 p..

Seni, S. J., Mullican, W. F., III, and Hamlin, H. S., 1984, Texas salt domes: natural resources, storage caverns, and extraction technology: The University of Texas at Austin, Bureau of Economic Geology, report prepared for Texas Department of Water Resources, under interagency contract no. IAC(84-85)-1019, 161 p..

Morton, R. A., Hamlin, H. S., Winker, C. D., Weise, B. R., Gregory, A. R., and Garcia, D. A., 1981, Prospectus for a design well in the Blessing area, Matagorda County, Texas: The University of Texas at Austin, Bureau of Economic Geology, report prepared for the U.S. Department of Energy, Division of Geothermal Energy, under contract no. DE-AC08-79ET27111, 37 p.

Weise, B. R., Edwards, M. B., Gregory, A. Ray, Hamlin, H. S., Jirik, L. A., and Morton, R. A., 1981, Geologic studies of geopressured and hydro pressured zones in Texas: test-well site selection: The University of Texas at Austin, Bureau of Economic Geology, report prepared for Gas Research Institute, under contract no. 5011-321-0125, 308 p.

Weise, B. R., Jirik, L. A., Hamlin, H. S., Hallam, S. L., Edwards, M. B., Schatzinger, R. A., Tyler, Noel, and Morton, R. A., 1981, Geologic studies of geopressured and hydro pressured zones in Texas: supplementary tasks: The University of Texas at Austin, Bureau of Economic Geology, report prepared for Gas Research Institute, under contract no. 5011-321-0125, 120 p.

Weise, B. R., Edwards, M. B., Gregory, A. R., Hamlin, H. S., Jirik, L. A., and Morton, R. A., 1980, Geologic studies of geopressured and hydro pressured zones in Texas: test-well site selection: The University of Texas at Austin, Bureau of Economic Geology, report prepared for Gas Research Institute, under contract no. 5011-321-0125, 349 p.

Course Notes

Ruppel, S. C., Wright, W., Fu, Q., Nance, H. S., Hamlin, H. S., Kerans, C., and El-Azzi, J. A., 2010, Permian Basin Geological Synthesis Project Sponsor's Meeting and Field Trip presentation notes: The University of Texas at Austin, Bureau of Economic Geology, variously paginated.

Published Reports

Ambrose, W. A., Smith, D. C., Hentz, T. F., Loucks, R. G., Reed, R. M., Ogiesoba, O. C., Olariu, M. I., Fu, Q., Zeng, H., Hamlin, H. S., Duncan, I. J., Carr, D. L., Ko, L., Peng, S., Jensen, J., Rogers, H., Clift, S. J., Sivil, J. E., Zhang, T., Eastwood, R., and Brooks, D. L., 2019, State of Texas Advanced Resource Recovery (STARR) progress report: The University of Texas at Austin, Bureau of Economic Geology, 43 p.

Ambrose, W. A., Smith, D. C., Hentz, T. F., Loucks, R. G., Reed, R. M., Ogiesoba, O. C., Olariu, M. I., Fu, Q., Zeng, H., Hamlin, H. S., Duncan, I. J., Carr, D. L., Ko, L., Peng, S., Rogers, H., Clift, S. J., Sivil, J. E., Zhang, T., Eastwood, R., and Brooks, D. L., 2018, State of Texas Advanced Resource Recovery (STARR) interim report: Bureau of Economic Geology, The University of Texas at Austin, 26 p.

Ambrose, W. A., Smith, D. C., Cutright, B. L., Scanlon, B. R., Reedy, R. C., Elliott, B. A., Paine, J. G., Foss, M. M., Tremblay, T. A., Wolaver, B. D., Loucks, R. G., Frébourg, G., Hentz, T. F., Ogiesoba, O. C., Olariu, M. I., Fu, Q., Zeng, H., Frost, E. L., III, Hamlin, H. S., Nance, H. S., Duncan, I. J., Hammes, U., Rogers, H., III, Clift, S. J., Sivil, J. E., Zhang, X., Reed, R. M., Baumgardner, R. W., Jr., Eastwood, R., Breton, C., Brooks, D. L., Rowe, H. D., Carr, D. L., Dunlap, D. B., Gale, J. F. W., and Peng, S., 2014, State of Texas Advanced Resource Recovery progress report and CD-ROM: Bureau of Economic Geology, The University of Texas at Austin, 90 p.

Hamlin, H. S., 1989, Hydrocarbon production and exploration potential of the distal Frio Formation, Texas Gulf Coast and offshore: The University of Texas at Austin, Bureau of Economic Geology Geological Circular 89-2, 47 p.

Workshop Workbooks

Ruppel, S. C., Loucks, R. G., Hamlin, H. S., Nance, H. S., Gale, Julia, Fu, Qilong, Ali, Walaa, and Helbert, Dana, 2009, Applications of cores to Permian Basin reservoir characterization: The University of Texas at Austin, Bureau of Economic Geology, 34 p.

Published Abstracts

Rostami, A., Jagadisan, A., Hernandez, L. M., Heidari, Z., Fairhurst, B., Yurchenko, I., Ikonnikova, S., and Hamlin, S., 2019, Advanced simultaneous formation evaluation and completion-oriented rock classification in the Midland Basin using integrated analysis of well logs, core measurements, and geostatistical data (abs.): Proceedings of the 7th Unconventional Resources Technology Conference, 1 p.

Smye, K. G., Banerji, D., Hamlin, H. S., Eastwood, R. L., Lemons, C., McDaid, G., and Hennings, P., 2019, Stratigraphic and facies architecture of the Delaware Mountain Group, Delaware Basin: implications for disposal of hydraulic fracturing wastewater (abs.): AAPG Annual Convention & Exhibition, San Antonio, Tex., 19-22 May.

Fairhurst, B., Ikonnikova, S., Dommissie, R., Hamlin, H. S., Carr, D. L., Eastwood, R., Gherabati, A., Male, F., Browning, J., Gülen, G., del Carpio Neyra, V., Vankov, E., and Yurchenko, I., 2018, Wolfberry and Wolfbone resource assessment: outcrop and core to geocellular models and economic outlooks (abs.): West Texas Geological Society, Fall Symposium: A Decade of Shale, v. 18, p. 23-24.

Ikonnikova, S., Hamlin, H. S., Yang, Q., del Carpio Neyra, V., Gulen, G., and Fairhurst, B., 2018, Individual well productivity and profitability of Midland Wolfcamp A and B wells (ext. abs.): Tight Oil Resource Assessment (TORA) Research Consortium Annual Meeting, p. 89-95.

Ikonnikova, S., Reedy, R. C., Hamlin, H. S., Lemons, C. R., and Scanlon, B. R., 2018, Evaluating cumulative water risks from shale oil production: Permian Basin case study (abs.): AGU Fall meeting 2018, Washington, DC, Abstract H21I-1754.

Janson, X., Kerans, C., Loucks, R. G., Nance, H. S., and Hamlin, H. S., 2017, Spectrum of gravity flow deposits on carbonate slopes and basin, Permian Basin, West Texas (abs.): SEPM Mountjoy Carbonate Research Conference, Austin, Texas, p. 102.

Hentz, T. F., Ambrose, W. A., and Hamlin, H. S., 2016, Upper Pennsylvanian and Lower Permian shelf-to-basin facies architecture and trends, Eastern Shelf of the southern Midland Basin, West Texas (ext. abs.): AAPG Southwest Section Convention Program and Abstracts, unpaginated.

Roush, R., Hamlin, H. S., and Rowe, H. D., 2015, Core-calibrated regional facies distributions of the Cline Shale, Midland Basin, TX (abs.): SWS-AAPG Annual Meeting abstracts, Wichita Falls, Texas.

Roush, R., Hamlin, H. S., and Rowe, H. D., 2015, Regional Stratigraphy and a High-Resolution Geochemical Model of the Upper Pennsylvanian Cline Shale, Midland Basin, Texas (abs.): AAPG Annual Meeting abstracts, Denver, Colorado.

Baumgardner, R. W., Jr., Hamlin, H. S., and Rowe, H. D., 2014, High-resolution core studies of Wolfcamp/Leonard basinal facies, Southern Midland Basin, Texas (abs.): Southwest Section AAPG, 2014 Annual Convention: West Texas Geological Society Publication no. 14-127, v. 1, p. 38-39.

Hamlin, H. S., 2014, Using electric logs to estimate salinity and map resources of fresh and brackish groundwater (abs.): Geological Society of America Annual Meeting, Vancouver, Canada, October 22, 2014.

Baumgardner, R. W., Jr., and Hamlin, H. S., 2013, Core-based geochemical study of mudrocks in basinal lithofacies in the Wolfberry Play, Midland Basin, Texas (abs.): in American Association of Petroleum Geologists Annual Convention and Exhibition, Pittsburgh, Pennsylvania, May 19-22, abstracts, CD-ROM.

Baumgardner, R. W., Jr., Hamlin, H. S., and Rowe, H. D., 2013, Geochemical and geomechanical study of basinal facies in the Wolfberry Play, Midland Basin, Texas (abs.): in West Texas Geological Society Fall Symposium, Midland, Texas, September 25-27, p. 98-99.

Baumgardner, R. W., Jr., Hamlin, H. S., and Rowe, H. D., 2013, Geochemical and geomechanical study of basinal facies in the Wolfberry Play, Midland Basin, Texas (abs.): West Texas Geological Society, 2013 Fall Symposium, Re-invigorating the Permian Basin, Abstract Booklet, p. 98-99.

Baumgardner, R. W., Jr., Hamlin, H. S., and Rowe, H., 2013, Geochemical and geomechanical study of basinal facies in the Wolfberry Play, Midland Basin, Texas: West Texas (abs.): Geological Society, 2013 Fall Symposium, Re-invigorating the Permian Basin, Abstract Booklet, p. 98-99.

Baumgardner, Robert W., Jr., Hamlin, H. S., 2013, Core-based geochemical study of mudrocks in basinal lithofacies in the Wolfberry Play, Midland Basin, Texas (abs.): AAPG Annual Convention, Pittsburgh, no. 1553135.

Cortez, M., III, Baumgardner, R. W., Jr., Hamlin, H. S., and Rowe, H., 2012, Chemostratigraphy of the Pennsylvanian-Permian section of the Midland Basin of West Texas with focus on the Wolfcamp Series: developing a mudrock correlation and paleo-depositional framework (abs.): Gulf Coast Association of Geological Societies Transactions, v. 62, p. 697.

Hamlin, H. S., and Baumgardner, R. W., Jr., 2012, Wolfberry play, Midland Basin, West Texas (abs.), in Leading the stampede: Southwest Section AAPG Convention, Fort Worth, May 19-22, p. 56-57.

McCreight, K., Rowe, H., Baumgardner, R. W., Jr., and Hamlin, H. S., 2012, Chemostratigraphy, mineralogy, and depositional environment of the Wolfcamp Formation, Midland Basin, Reagan County, Texas (abs.): American Association of Petroleum Geologists, Annual Convention, Abstract 1236324, 1 p.

Hammes, Ursula, Eastwood, Ray, and Hamlin, H. S., 2010, Influence of facies variations on exploration, production, and resource assessment in gas-shale plays: a geologic and petrophysical evaluation of the Haynesville Shale, East Texas, USA (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition, v. 19, p. 98.

Hammes, Ursula, Hamlin, H. S., and Eastwood, Ray, 2010, New insights into facies, depositional environments, sequence stratigraphy, and geochemical and petrophysical parameters of the Haynesville Shale of East Texas and Louisiana (abs.): Houston Geological Society Mudrock Conference, Houston, February.

Hamlin, H. S., 2009, Depositional and diagenetic controls on reservoir quality, Spraberry and Dean Sandstones, northern Midland Basin (abs.), in Elusive hydrocarbons are still to be found in the Permian Basin: West Texas Geological Society Fall Symposium, October 28-30, p. 24-25.

Hamlin, H. S., and Nance, H. S., 2009, Slump and debris-flow facies from mixed carbonate/clastic submarine slopes, Permian Basin, West Texas (abs.), in 4th International Symposium, Submarine Mass Movements and Their Consequences, Abstracts, p. 109.

Hamlin, H. S., 2008, Syn-orogenic slope and basin depositional systems, Ozona sandstone, Val Verde Basin, southwest Texas (abs.): AAPG Southwest Section Convention Program and Abstracts: American Association of Petroleum Geologists, p. 6-7.

Apperson, K. D., Galloway, W. E., Hamlin, H. S., and Kesler, Christopher, 2000, A GIS database for deep-water clastic reservoirs: organization and applications (abs.): American Association of

Petroleum Geologists Bulletin, v. 84, no. 9, p. 1398.

Clift, S. J., Tyler, Roger, Hamlin, H. S., and Yang, Wan, 1999, State of Texas advanced oil and gas resource recovery program--Project STARR--a strategy for independents (abs.), in AAPG Annual Convention official program: American Association of Petroleum Geologists, p. A24-A25.

Hamlin, H. S., 1998, Opposed passive- and active-margin slope and basin-floor depositional systems, Ozona Sandstone, Val Verde Basin, Southwest Texas (abs.), in Bridges to discovery: extended abstracts, volume 1, AAPG Annual Convention: American Association of Petroleum Geologists, p. A267.

Hamlin, H. S., 1998, Slope and basin depositional systems, Ozona Sandstone, Val Verde Basin, Southwest Texas (abs.), in DeMis, W. D., and Nelis, M. K., eds., The search continues into the 21st Century, WTGS Fall Symposium: West Texas Geological Society Publication No. 98-105.

Ortega, Orlando, Marrett, Randall, Hamlin, H. S., Clift, S. J., and Reed, R. M., 1998, Quantitative macrofracture prediction using microfracture observations: a successful case study in the Ozona Sandstone, West Texas (abs.): AAPG Annual Convention extended abstracts: American Association of Petroleum Geologists, v. 2, p. A503.

Tyler, Roger, Major, R. P., Hamlin, H. S., Holtz, M. H., Dutton, S. P., and Vining, M. R., 1998, State of Texas Advanced Oil and Gas Recovery Program--Project STARR (abs.): American Association of Petroleum Geologists Bulletin, v. 82, no. 3, p. 529.

Tyler, Roger, Vining, M. R., Hamlin, H. S., Holtz, M. H., Dutton, S. P., and Major, R. P., 1998, Reservoir characterization and advanced resource recovery technology on Texas State Lands (abs.): American Association of Petroleum Geologists Bulletin, v. 82, no. 9, p. 1793.

Vining, M. R., Tyler, Roger, Major, R. P., Hamlin, H. S., Holtz, M. H., and Dutton, S. P., 1998, Oil and gas resource development through targeted technology for Texas operators--Project STARR in action (abs.), in Stephens, W. C., ed., AAPG Southwest Section Convention Transactions and Abstracts: American Association of Petroleum Geologists, p. 150.

Vining, M. R., Tyler, Roger, Major, R. P., Hamlin, H. S., Holtz, M. H., and Dutton, S. P., 1998, Oil and gas resource development through targeted technology for Texas operators--Project STARR in action (abs.): American Association of Petroleum Geologists Bulletin, v. 82, no. 3, p. 529.

Tyler, Roger, Major, R. P., Hamlin, H. S., Holtz, M. H., and Vining, M. R., 1997, Project STARR--State of Texas Advanced Oil and Gas Resource Recovery Program (abs.): American Association of Petroleum Geologists Bulletin, v. 81, no. 9, p. 1593.

Tyler, Roger, Major, R. P., Holtz, M. H., Hamlin, H. S., and Dutton, S. P., 1997, Characterization of oil and gas reservoirs and recovery technology deployment on Texas State Lands (abs.), in Proceedings, Fourth International Reservoir Characterization Technical Conference, Houston: U.S. Department of Energy, BDM-Oklahoma, Inc., and American Association of Petroleum Geologists, p. 179.

Hamlin, H. S., 1996, Canyon sandstones--a geologically complex natural gas play in slope and basin facies, Val Verde Basin, southwest Texas (abs.): South Texas Geological Society Bulletin, v. 36, no. 7, p. 5.

Dutton, S. P., and Hamlin, H. S., 1994, Compositional, textural, and diagenetic controls on porosity distribution and evolution in Permian Tirrawarra Sandstone, Cooper Basin, South Australia (abs.): American Association of Petroleum Geologists Annual Convention Abstracts, v. 3, p. 140.

Hamlin, H. S., Clift, S. J., Dutton, S. P., Hentz, T. F., and Laubach, S. E., 1994, Geologically complex gas reservoirs in slope and basin facies, Canyon sandstones, Val Verde Basin, southwest Texas (abs.): Houston Geological Society Bulletin, v. 37, no. 1, p. 11.

Hamlin, H. S., Dutton, S. P., Tyler, Noel, Yeh, J. S., Seggie, Robert, Lansom, Peter, and

Asquith, G. B., 1994, Resource optimization through facies-based characterization of a braid-delta sandstone reservoir, Tirrawarra oil field, Cooper Basin, South Australia (abs.): American Association of Petroleum Geologists Annual Convention Abstracts, v. 3, p. 162.

Dutton, S. P., Clift, S. J., Folk, R. L., Hamlin, H. S., and Marin, B. A., 1993, Porosity preservation by early siderite cementation in Sonora Canyon sandstones, Val Verde Basin, southwest Texas (abs.): American Association of Petroleum Geologists 1993 Annual Convention Program, p. 95.

Dutton, S. P., and Hamlin, H. S., 1992, Interaction of burial history and diagenesis of the Upper Cretaceous Frontier Formation, Moxa Arch, Green River Basin, Wyoming (abs.): American Association of Petroleum Geologists Bulletin, v. 76, no. 8, p. 1258.

Hamlin, H. S., 1992, Frontier Formation stratigraphy and depositional systems architecture, Green River Basin, Wyoming: a record of sequence development in a proximal foreland basin (abs.), in Calgary: American Association of Petroleum Geologists 1992 annual convention official program: American Association of Petroleum Geologists, p. 50-51.

Hamlin, H. S., Clift, S. J., and Dutton, S. P., 1992, Stratigraphy and diagenesis of Sonora Canyon deep-water sandstones, Val Verde Basin, southwest Texas (abs.): American Association of Petroleum Geologists Bulletin, v. 76, no. 4, p. 575-576.

Buehring, R., Laubach, S. E., and Hamlin, H. S., 1990, Stratigraphic analysis of fluvial and marine sandstone with borehole-imaging geophysical logs and core (abs.): Geological Society of America Abstracts with Programs, v. 22, no. 7, p. A47.

Hamlin, H. S., and Buehring, R. L., 1990, Facies-related permeability trends in the Frontier Formation along the Moxa Arch, Green River Basin, Wyoming (abs.): American Association of Petroleum Geologists Bulletin, v. 74, no. 8, p. 1325.

Hamlin, H. S., 1989, Hydrocarbon production and potential of the distal Frio Formation, Texas Gulf Coast and offshore (abs.), in Hunt, M. C., Doenges, S. V., and Stubbs, G. S., eds., Second symposium on studies related to continental margins--a summary of year-three and year-four activities: sponsored by Minerals Management Service, U.S. Department of the Interior, and Continental Margins Committee, Association of American State Geologists, Program and Abstracts, p. 18.

Hamlin, H. S., 1988, Hydrocarbon production and potential of distal Frio Formation, Texas Gulf Coast and offshore (abs.): American Association of Petroleum Geologists Bulletin, v. 72, no. 2, p. 193.

Hamlin, H. S., 1986, Hydrogeology of Barbers Hill salt dome, Texas Coastal Plain (abs.): Geological Society of America, Abstracts with Programs, v. 18, no. 7, p. 626.