

The U.S. DOE Methane Hydrate R&D Program

DOE Sponsored Student Researchers

*Publications and Presentations of DOE
Supported Methane Hydrate R&D 1999-2012*

August 2012



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Section I: Documentation of Support for Education

Students contributing to and receiving support from DOE-funded Methane Hydrate projects

Alaska, Anchorage, The University of (in conjunction with the Maurer/Anadarko project)

- Porhola, Stan, B.S.
- Ross, Zulimacristina, M.S.

Alaska, Fairbanks, The University of (in conjunction with the BP-Alaska project)

- Banerjee, Sudiptya, M.S., 2005
- Bhangale, Amit, M.S., 2007, Modeling
- Brosius, Laura, M.S. 2010. Biology
- Duffy, Ryan, B.S., 2010, Mechanical Engineering
- Gaglioti, Ben, MS, 2010, Biology
- Howe, Steven, M.S., 2004, Modeling and Economics
- Jaiswal, Namit, M.S., 2004, Petroleum Engineering
- Johnson, Andrew, M.S., 2009, Petroleum Engineering
- Kerkar, Prasad, M.S., 2005
- Kulkarni, Abhijeet, Ph.D., 2005
- Phale, Hemant, M.S., 2006
- Singh, Praveen, M.S., in progress
- Stone, Chris, M.S., 2006
- Tsunemori, Phillip, B.S., 2005
- Vajjha, Pavan, M.S., 2005
- Vas, Dragos, M.S., 2010. Engineering
- Westervelt, Jason, M.S., 2004, Geology
- White, Aaron, M.S., 2003

Arizona, The University of (in conjunction with the BP-Alaska project)

- Arca, M. Serkan, Ph.D., in progress, Geophysics
- Barker, Margaret, B.S., in progress
- Gandler, Greg, B.S., 2004
- Geauner, Scott, M.S., in progress
- Hennes, Andrew, M.S., 2004, Structural Geology
- Hagbo, Casey, M.S., 2003, Geophysics
- Manuel, Justin, M.S., 2006, Geophysics
- Peyton, Lynn, Ph.D., in progress, Geophysics
- Zhoa, Bo, M.S., 2003, Geophysics

Baylor University (seafloor electrical resistivity project)

- Amidu, Sikiru, Ph.D., Geophysics
- Gunnell, Allen, M.S., Geophysics

California – Berkeley, University of (in association with LBNL)

- Elsen, Heather, Ph.D., in progress, Chemistry
- Kowalsky, Michael, Ph.D., 2003
- Pruess, Jacob, B.S., Chemical Engineering
- Wu, Gordon, B.S., in progress, Molecular and Cellular Biology
- Holzman, Ran, Ph.D. Engineering, in progress, AGU Student award

California – Santa Barbara, University of

- Heintz, Monica, Ph.D., in progress, Earth Science (NETL Methane Hydrate Research Fellow)
- Paul, Blair, Ph.D., in progress, Marine Science
- Stubbs, Chris, Ph.D., in progress, Geological Oceanography (in association with CMRET project)

Carnegie-Mellon University (in association with NETL/ORD)

- Howard, Kris, B.S., 2002, Chemical Engineering

Clarkson University (hydrate model development project)

- Ji, Chuang, M.S., 2001
- White, Tim, M.S., 2003

Columbia University (in association with the GoM JIP)

- Cook, Ann, Ph.D., 2010, Geophysics
- Grabias, Bryan, B.S., in progress, Chemical Engineering (summer intern)

Colorado, Boulder, University of

- Craft, Julianne, B.S., 2009, Biochemistry
- Tzou, David, B.S., 2010, Chemical Engineering and Computer Science

Colorado School of Mines (in association with LBNL)

- Gupta, Arvind, Ph.D., in progress
- Walsh, Matt, Ph.D., in progress, Chemical Engineering
- Peters, David, M.S., 2001
- Ulrich, Shannon, M.S., 2010, Environmental Engineering and Science

Colorado School of Mines (in association with ORNL)

- Ulrich, Shannon, M.S., 2010, Environmental Engineering and Science

Colorado State University

- Bolton, Robert, B.S., in progress, Biology

Delaware, University of

- Christman, G., M.S., 2009, Marine Biosciences
- Yu, Liying, in progress

Duquesne University (in association with NETL/ORD)

- Thomas, Dick, Ph.D., in progress, Chemistry
- Thomas, Laura, B.S., 2005, Chemistry

Florida State University (in association with CMRET project)

- Lapham, Laura, Post-doctoral, in progress, Geochemistry (NETL Methane Hydrate Research Fellow)
- Peeler, Kelly, M.S., 2004
- Tazaz, Amanda, Ph.D., in progress, Geochemistry
- Rachel Wilson, Ph.D, 2010, Post-doctoral in progress

Georgia Institute of Technology (in association with GoM JIP)

- Cortes, Douglas, Ph.D., 2010
- Dai, Sheng, Ph.D., 2012
- Francisca, Franco, Post-doctoral, 2002-2004
- Lee, Changho, Post-doctoral, 2008
- Lee, Jong-Sub, Post-doctoral, 2004-2005
- Lee, Joo-Yong, Ph.D., 2007
- Martin, Ana Isabel, M.S., 2004
- Narsilio, Guillermo, Ph.D., 2005
- Yun, Tae-Sup, Ph.D., 2005, Post-doctoral until August 2007

Georgia Institute of Technology (in association with the CMRET project)

- Dobbs, Gary, Ph.D., 2007, Chemistry
- Hvozدارa, L., Post-doctoral 2001-2002, Chemistry
- Janotta, Markus, Ph.D., 2003, Chemistry
- Pennington, Neil, M.S., 2003, Chemistry
- Vogt, Frank, Post-doctoral 2002-2003, Chemistry

Georgia Institute of Technology (DOE Contract DE-FC26-06NT42963: Methane Recovery from Hydrate-bearing Sediments)

- Jung, Jongwon, Ph.D., in progress (experiments in the SPS - ORNL)
- Taboada-Serrano, Patricia, Post-doctorate
- Yun, Tae-Sup, Ph.D., 2005, Post-doctoral
- Jang, Jaewon, Ph.D., in progress (experiments in the SPS - ORNL)
- Espinoza, Nicolas, Ph.D., in progress
- Shin, Hosung, Ph.D., in progress

University of Georgia (in association with CMRET project)

- Yundan Pi: Visiting Master's , 2007
- Yige Zhang: M. S., in progress, Marine Science
- Bin Liu: Postdoc, in progress
- Bowles, Marshall, Ph.D., in progress, Microbiology/Biogeochemistry

Houston, University of (in association with the Westport project)

- Nanchary, Narender, M.S., 2003, Chemical Engineering
- Ogunlana, Damilola, Post-doctoral, Chemical Engineering
- Pitchumani, Ramanan, Post-doctoral, Chemical Engineering
- Sun, Xuefei, Ph.D., 2005, Chemical Engineering
- Phirani, Jyoti, Ph.D., 2010, Chemical Engineering

Idaho, University of

- Boyd, Stephanie, M.S., 2004, Environmental Science

Louisiana State University (in association with CMRET project)

- Hackworth, Matt, Ph.D., 2004, Geology and Geophysics

Massachusetts Institute of Technology

- Jain, Antone, M.S./Ph.D., in progress, Groundwater Hydrology
- MacMinn, Christopher, Ph.D., in progress, Mechanical Engineering

Mississippi, University of (in association with CMRET project)

- Caruso, Simona, MS, 2007-8, visiting scholar, Marine Geology
- Giacomini, Laura, 2004-5, post-graduate fellow, Marine Geology
- Geresi, Erika, 2001 – 3, visiting scholar, Geophysics
- Grover, Tarun, M.S., 2004
- Hodges, Tyler, M.S. 2003
- Ingrassia, Michela, visiting scholar, 2010, Marine Biology
- Kumar, Viren, M.S., 2003
- Macelloni, Giordano, 2007, post-graduate fellow, stratigraphy
- Macelloni, Leonardo, visiting scholar, Ph. D., 2007, Marine Geophysics
- Simonetti, Antonello, visiting scholar, 2008-9, Marine Geology
- Strack, Emily, M.S., Geological Engineering

Mississippi State University (in association with CMRET project)

- Dearman, Jennifer, Ph.D., 2007, Chemical Engineering
- Ding, Tao, M.S., 2004, Chemical Engineering
- Kothapalli, Chandra, M.S., 2002, Chemical Engineering
- Lee, May Shia, M.S., 2001, Chemical Engineering
- Radich, James, M.S., 2009, Chemical Engineering
- Woods, Charles, M.S., 2004, Chemical Engineering
- Xiong, Shangmin, M.S., 2008, Chemical Engineering
- Zhang, Guochang, Post-doctoral, Microbiology

North Carolina, Chapel Hill, The University of (in association with CMRET project)

- Ingram, Wes, Ph. D., in progress.
- Lapham, Laura, Ph.D., 2007, Marine Sciences.
- Lloyd, Karen, Ph.D., 2009, Marine Sciences
- Yang, Tingting, Ph. D., in progress, Marine Sciences

Oklahoma, University of (in association with Maurer Hot Ice project)

- Chikyala, Vikramaditya, M.S.
- Raghunathan, Ravi, Ph.D.
- Tran, Tung, Ph.D., in progress, Chemical Engineering

Oklahoma, University of

- Leeman, John, B.S.

Oregon State University (in association with Idaho National Laboratory)

- Biggs, Brandon, Ph.D., in progress, Interdisciplinary Studies (COAS)
- Carini, Paul, Ph.D., in progress, (summer lab assistant)
- Kannberg, Peter, M.S., 2009, Geophysics
- Powers, Katie, B.S., 2009, Microbiology
- Schwartz, Amanda, B.S., 2009, Microbiology

Pennsylvania State University, The (in association with NETL/ORD)

- Lekse, Jonathan, B.S., 2004, Chemistry

Pittsburgh, University of (in association with NETL/ORD)

- Rosenbaum, Eilis, M.S., 2004, Chemistry (now supporting NETL R&D w/ Parsons)

Prairie View A&M University

- Tambe, Jacob, M.S. Engineering, withdrew.
- Williams, Meeckral, B.S. Chem. Eng., graduated 2008.
- Cox, Jarvus, B.S. Electrical Eng., graduated 2008.
- Harrison, Latoya, B.S. Chem. Eng., in progress.
- Jones, Ashley M., B.S. Computer Eng. Tech., in progress.

Princeton University (in association with LBNL)

- Reiter, Paul, B.S., 2005

Rice University (in association with the Chevron JIP)

- Bhatnagar, Gaurav, Ph.D, 2008, Chemical Engineering (now with Shell Oil Co.)
- Chatterjee, Sayantan, Ph.D. in progress, Chemical Engineering
- Daigle, Hugh, Ph.D. Earth Science. 2011 (now with Chevron Technology Co.)
- Gu, Guangsheng, Ph.D. in progress, Chemical Engineering
- Hubbard, L. Ashley, M.S. Earth Science, 2008
- Hustoft, Steinar, visiting Ph.D. student 2008, University of Tromso, Norway
- Jaiswal, Preyank, Ph.D , post-doc, 2008 (now assistant professor at Oklahoma State Univ.)
- O'Hayer, Walter, M.S. Earth Science, 2009
- Stigall, Justin, M.S., Earth Science, 2010
- Yu, Hua, Research Scientist, Earth Science, 2007

San Diego State University (in association with the Chevron JIP)

- Lindemann, Christie, M.S., 2005

California – San Diego, University of (Scripps Institute of Oceanography: Scripps monitoring project, Chevron JIP*, CMRET** and others)

- Brooks, Laura, Ph.D., in progress**
- Fenwick, Rebecca, Ph.D., in progress, Geosciences Division*
- Hangsterfer, Alexandra, Ph.D., in progress, Chemical Oceanography*
- Solomon, Evan, Ph.D., Marine Geochemistry-Geosciences*
- Solem, Christian, M.S., Marine Geochemistry
- Traer, James, Ph.D., in progress**
- Yishai Weinstein, Post-doctoral Fellow

South Carolina, University of

- Battista, Brad, Post-doctoral, in progress, Geophysics
- Addison, Adrian, Ph.D., in progress, Geophysics
- Simonetti, Antonello, Ph.D., in progress, Geology

South Florida, University of

- Bell, Ryan, Ph.D., 2009

Southern Mississippi, University of (in association with CMRET project)

- Johnson, Jeff, M.S., 2003, Physical Oceanography
- Martin, Kevin, M.S., 2006, Geological Oceanography

Stanford University

- Bandyopadhyay, Kaushik, Ph.D., Seismic and Numerical modeling
- Sain, Ratnanabha, Ph.D., Seismic and Numerical modeling
- Stony Brook University, New York (in association with BNL)
- Altraide, Ibibia, M.S., 2006, Materials Science
- Eaton, Michael, Ph.D., 2007.
- Fraczak, Timothy, B.E., in progress
- Horvat, Christine, B.S., in progress, Chemical and Molecular Engineering (also partially supported with DOE Office of Science Summer SULI program)
- Kaur, Harsimran, B.S., 2007, Chemical and Molecular Engineering
- Kerkar, Prasad, Ph.D., in progress, (also supported in MS program at UA-Fairbanks)
- Shi, Xai, B. 2007, Chemical and Molecular Engineering

Texas A&M University (several projects)

- De Beukelaer, Sophie, M.S.
- Grover, Tarun, Ph.D., expected August 2008, Petroleum Engineering
- Jung, Woodong, Ph.D. 2008, Geochemistry (in association with CMRET project)
- Milkov, Alexi, Ph.D., and Post-Doctoral Researcher, Geochemistry
- Oztgul, Ercin, M.S., 2002, Geochemistry
- Vardaro, Michael, M.S., Geophysics (in association with CMRET project)

Texas A&M University – Corpus Christi

- Garcia, Oscar, Ph.D., 2009, Remote Sensing, Ocean Features
- Shapiro, Rosalie, M.S., 2010, Marine Geochemistry, Carbonate Geology

University of Texas, Austin

- Alkin, Engin, M.S., 2007, Geophysics
- Christianson, Pete, B.S. 2008, Geophysics
- Hernandez, Jamie, M.S., 2008, Geophysics
- Behseresht, Javad, M.S., 2009; Ph.D in progress, Petroleum and Geosystems Engineering
- Peng, Yao, Ph.D. 2011, Petroleum and Geosystems Engineering
- Prodanović, Maša, Post-doctoral , 2008-2010, Petroleum and Geosystems Engineering

University of Victoria, British Columbia (in association with CMRET project)

- Geresi, Erika, 2007, Ph.D., Geophysics
- Morley, Mike, 2007, M.S., Geophysics

William and Mary, The College of (in association with the Naval Research Laboratory)

- Pohlman, J. W., Ph.D., 2007, Geochemistry

Woods Hole Oceanographic Institution (in association with CMRET project* and other)

- Cook, Mea, Post-doctoral,
- Camilli, Rich, Post-doctoral, 2006*
- Pizzaro, Oscar, Post-doctoral, 2006*

Wyoming, The University of (in association with the Blake Ridge OBC seismic project)

- Gorman, Andrew, Ph.D., 2003, Geophysics
- Hornbach, Matt, Ph.D., 2004, Geophysics
- Nealon, Jeffrey, Ph.D., in progress, Geophysics

Yonsei University, Seoul, Korea

- Moon, Ji-Won, Post-doctoral, 2003, Geology

Additional Post-Degree Assignments at National Labs

Brookhaven National Laboratory

- Servio, Philip, 2003
- Eaton, Michael, 2006, doctoral student
- Kerkar, Prasad, 2006, doctoral student
- Lawrence Berkley National Laboratory
- Reiter, Paul, 2005
- Walsh, Matthew, Ph.D., in progress, Colorado School of Mines, Experimental hydrology and geomechanics
- Gupta, Arvind, Ph.D., 2007, Colorado School of Mines, Experimental hydrology
- Moridis, Nefeli, undergraduate, University of Texas, Data reduction
- Grover, Tarun, Ph.D., expected August 2008, Petroleum Engineering
- Boulis, Anastassios, M.S., in progress

National Energy Technology Laboratory

- Hao, Jan, in progress
- Link, Dirk, 2001
- Shofield, Daniel, in progress

Oak Ridge National Laboratory

- Alford, Jonathan, Post-B.S., 2008, Biochemistry, Cellular, and Molecular Biology
- Jones, Camille, 2000, Materials Science
- Marshall, Simon, 2000-2001, Materials Science
- McCallum, Scott, M.S., post-M.S., 2003, Geology
- Peters, Philip
- Reistenberg, Dave, post-M.S., 2002-2005
- Szymick, Phillip, post-M.S., 2005-2007, Geology
- Taboada-Serrano, Patricia, post-doctoral 2004 – 2008, chemical engineering
- Ulrich, Shannon, post B.S., 2006-2007
- Zatsepina, Olga, 2003

U.S. Geological Survey

- Dugan, Brandon, 2003-2004 (USGS Mendenhall postdoc)]
- Pohlman, John, 2007-2009 (USGS Mendenhall postdoc)

- Brothers, L., Hart, P.E., and Ruppel, C.R., 2012. "Minimum distribution of subsea ice-bearing permafrost on the U.S. Beaufort Sea continental shelf." *Geophysical Research Letters*, vol. 39, L15501, doi:10.1029/2012GL052222, 2012.
- Brothers, L.L., Kelley, J.T., Belknap, D.F., Koons, P.O., Barnhardt, W.A., 2011. "Pockmarks: Self-scouring seep features?" *Proc. of the 7th International Conference on Gas Hydrates (ICGH 2011)*. Edinburgh, Scotland, United Kingdom, July, 17-21, 2011. Paper 326.
- Cook, A., Rasmus, J., Li, Q., Sun, K., Anderson, B., Collett, T., and Goldberg, D., 2011. "Analyzing Electrical Anisotropy in Gas Hydrate Reservoirs Using Logging-While-Drilling Directional Resistivity Data from the Gulf of Mexico Gas Hydrate Joint Industry Project." *Proc. of the 7th International Conference on Gas Hydrates (ICGH 2011)*. Edinburgh, Scotland, United Kingdom, July, 17-21, 2011.
- Cook, A., Goldberg, D., 2009. "Two Kinds of Gas Hydrate Reservoirs: Pore-filling Sand vs. Fractured Clay," *Eos Trans. AGU* 90(52), Fall Meet. Suppl. Abstract OS31A-1174.
- Cook, A., Guerin, G., Mrozewski, S., Collett, T.S., Boswell, R., 2009. "Gulf of Mexico Gas Hydrate Joint Industry Project Leg II — Walker Ridge 313 LWD Operations and Results," *Proceedings of the Drilling and Scientific Results of the 2009 Gulf of Mexico Gas Hydrate Joint Industry Project Leg II*. (click [here](#))
- Cook, A., Malinverno, A., 2010. Can in situ methanogenesis explain a 3 m-thick gas hydrate-filled sand in Walker Ridge Block 313, Gulf of Mexico?, Abstract OS53A-1353 Poster presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
- Daigle, H., Dugan, B., 2008. "Extending Nuclear Magnetic Resonance Data for Permeability Estimation in Fine-Grained Sediments," *Eos Trans. AGU*, 89(53), Fall Meet. Suppl. Abstract H43J-04.
- Daigle, H., Dugan, B., 2009. "Fracture Genesis and Fracture Filling in Hydrate Systems," *Eos Trans. AGU* 90(52), Fall Meet. Suppl. Abstract OS41A-02.
- Daigle, H., Dugan, B., 2009. "Extending NMR data for permeability estimation in fine-grained sediments," *Marine and Petroleum Geology*, Volume 26, Issue 8, September 2009, Pages 1419-1427, ISSN 0264-8172, DOI: 10.1016/j.marpetgeo.2009.02.008.
- Daigle, H., Dugan, B., 2010. "Origin and evolution of fracture-hosted methane hydrate deposits," *Journal of Geophysical Research*, 115, B11103, doi:10.1029/2010JB007492.
- Daigle, H., Dugan, B., 2010. "Effects of multiphase methane supply on hydrate accumulation and fracture generation," *Geophysical Research Letters*, 37, L20301, doi:10.1029/2010GL044970.
- Daigle, H., Dugan, B., 2010. Free gas in the regional hydrate stability zone: Implications for hydrate distribution and fracturing behavior, Abstract : OS53A-1355 Poster presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
- Daigle, H., Dugan, B., 2011. "Capillary controls on methane hydrate distribution and fracturing in advective systems," *Geochemistry, Geophysics, Geosystems*, 12, Q01003, doi:10.1029/2010GC003392.

- Daigle, H., Dugan, B., 2011. "An improved technique for computing permeability from NMR measurements in mudstones," *Journal of Geophysical Research*, 116, B08101, doi:10.1029/2011JB008353.
- Daigle, H., Dugan, B., 2011. "Permeability anisotropy and fabric development: A mechanistic explanation," *Water Resources Research*, 47, W12517, doi:10.1029/2011WR011110.
- Daigle, H., Bangs, N., Dugan, B., 2011. "Transient hydraulic fracturing and gas release in methane hydrate settings: A case study from southern Hydrate Ridge," *Geochemistry, Geophysics, Geosystems*, 12, Q12022, doi:10.1029/2011GC003841.
- Heintz, M. B., Mau, S., Valentine, D. L., Reed, J.H., Hallam, S. J., Yang, J., 2008. "Methane Consumption in Waters Overlying a Hydrate-Associated Mound in the Santa Monica Basin: A Project Synopsis," *Proceedings of the 6th International Conference on Gas Hydrates (ICGH 2008)*, Vancouver, British Columbia, CANADA, July 6-10, 2008.
- Heintz M.B., Mau, S., Valentine, D.L., 2010. "Methane Consumption in the Water Column of the Santa Monica Basin: A Comparison from Two Sampling Expeditions," *Eos Trans. AGU*, 91(26), Ocean Sci. Meet. Suppl., Abstract CO45B-12.
- Heintz, M.B., Pohlman, J.W., Valentine, D.L., Wooller, M.J., 2010. "Ice Cover Modulates Methanotrophic Efficacy in Arctic Thermokarst Lakes," *7th Annual Southern California Geobiology Symposium*. CALTECH. Pasadena, CA.
- Heintz, M. B., Pohlman, J., Wooller, M. J., Elvert, M., Ruppel, C. D., and Valentine, D. L., 2010. "Ice Cover Enhances Methane Consumption in Alaskan Thermokarst Lakes," Abstract GC51J-03 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.
- Lapham, L., Albert, D., Chanton, J., Martens, C., 2001. "Light hydrocarbon distributions and sulfate reduction rates in sediment porewaters near exposed gas hydrates," *American Society of Limnology and Oceanography Annual Meeting*.
- Lapham, L., Chanton, J., Martens, C., Scheckler, H., Chapman, R., Pohlman, J., 2003. "Innovations in Sampling Pore Fluids From Deep-Sea Hydrate Sites," *Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract OS52D-05, 2003.
- Lapham, L. L., Martens, C. S. and Coffin, R. B., 2003. "Controls on the isotopic composition of dissolved methane in the pore waters of sediments containing disseminated gas hydrate off of Cascadia Margin," *Proceedings of the American Society of Limnology and Oceanography Annual Meeting*, p. 82.
- Lapham, L., J. Chanton, C. Martens, and H. Mendlovitz, 2004. "Innovations in sampling pore fluids at deep sea hydrate sites," in B. J Thompson, ed., *Energy, Simulation-Training, Ocean Engineering and Instrumentation*, Research Papers of the Link Foundation Fellows, Volume 3, p. 4.
- Lapham, L., Chanton, J., Martens, C., Pohlman, J., Chapman, R., 2005. "In-situ light hydrocarbon concentrations and stable carbon isotope values in hydrate-bearing sediments of Cascadia Margin, Vancouver Island," *Second General Assembly European Geosciences Union*, April 24-29.

- Lapham, L.L., Chanton, J.P., Martens, C.S., Higley, P.D., Jannasch, H.W., Woolsey, J.R., 2006. "Pore-Fluid Array Construction and Deployment at Mississippi Canyon Site 118, Gulf of Mexico," OTC 18170-MS. *Proceedings of the 2006 Offshore Technology Conference, Houston, TX.*
- Lapham, L., Chanton, J., Martens, C., Higley, P., Jannasch, H., Woolsey, J., Sleeper, K., 2007. "Biogeochemical sensors: design and applications of the Pore Fluid Array for the Mississippi Canyon 118 Gas Hydrate Seafloor Observatory," *Mid-South Area Engineering and Sciences Conference, University of Mississippi, May 17-18.*
- Lapham, L., Chanton, J., Martens, C., Higley, P., Jannasch, H., Woolsey, J., 2007. "Monitoring long term hydrate stability: in situ methane and the Pore Fluid Array (PFA)," *Gulf of Mexico Hydrates Research Consortium Annual Meeting, University of Mississippi.*
- Lapham, L., Chanton, J., Martens, C., Sleeper, K., Woolsey, J., 2007. "Methane and biogeochemical gradients within acoustic wipe-out zones at a Gulf of Mexico Cold Seep," *Eos Trans. AGU, 88(52), Fall Meet. Suppl. Abstract B53C-07.*
- Lapham, L., 2007. "In situ measurements of methane cycling in cold seep sediments containing gas hydrates and brines," Ph.D. Thesis, University of North Carolina.
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Section II: Publications Related to the Program's Major Field Projects

With private companies, state and local governments, universities, and research institutions

Alaska North Slope Gas Hydrate Reservoir Characterization (DE-FC26-01NT41332)

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Section III: Publications Related to the Program's Efforts with Universities and Other Research Institutions

Gas hydrate characterization in the Gulf of Mexico (DE-NT0005668)

Scripps Institution of Oceanography, University of California – San Diego

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Assessing the Efficacy of the Aerobic Methanotropic Biofilter in Methane Hydrate Environments (DE-NT0005667)

University of California – Santa Barbara

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- Kessler, J. D., Valentine, D. L., Redmond, M. C., Du, M., Chan, E. W., Mendes, S. D., Quiroz, E. W., Villanueva, C. J., Shusta, S. S., Werra, L. M., Yvon-Lewis, S. A., and Weber, T. C., 2011. "A Persistent Oxygen Anomaly Reveals the Fate of Spilled Methane in the Deep Gulf of Mexico," *Science Express*. DOI: 10.1126/science.1199697. January 2011. (click [here](#))
- Mau, S., Heintz, M.B., Kinnaman, F. S., Valentine, D. L., 2010. "Compositional variability and air-sea flux of ethane and propane in the plume of a large, marine seep field near Coal Oil Point, CA," *Geo-Marine Letters* 30(3-4) 367-378. DOI 10.1007/s00367-010-0185-z.
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Characterization of Methane Degradation and Methane-Degrading Microbes in Alaska Coastal Waters (DE-NT0005666)

University of Delaware

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Source Characterization and Temporal Variation of Methane Seepage from Thermokarst Lakes on the Alaskan North Slope in Response to Arctic Climate Change (DE-NT0005665)

University of Alaska Fairbanks

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Remote Sensing and Sea-Truth Measurements of Methane Flux to the Atmosphere (HYFLUX project) (DE-NT0005638)

Texas A&M University - Corpus Christi

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- Mizaikoff, B., 2006: Next-Generation Mid-Infrared Sensors in Harsh Environments. Invited Presentation, ACS Fall Meeting, San Francisco/CA, September 10-14.
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Heat flow and gas hydrates on the continental margin of India (DE-NT0005669)

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Characterizing Marine Gas Hydrate Reservoirs Using 3D Seismic Data and 4C OBS Data (DE-FC26-00NT41024) and (DE-FC26-06NT42667)

University of Texas at Austin Bureau of Economic Geology

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Rock Solid Images

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Section IV: Publications Resulting from Work with the Dept. of Energy's National Labs

Additional publications produced by the National Labs in association with the Program's major filed projects are included within Section II.

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Section V: Publications Resulting from Interagency Agreements

Additional publications by agencies are included under major field projects where appropriate.

Department of Defense, Office of Naval Research, Naval Research Lab

Peer-Reviewed Publications

- Coffin, R. B., J. W. Pohlman, J. Gardner, R. Downer, W. Wood, L. Hamdan, S. Walker, R. Plumme, J. Gettrust and, J. Diaz 2007. Methane Hydrate Exploration on the Mid Chilean Coast: A Geochemical and Geophysical Survey. *Am. Chem. Soc., Div. Pet. Chem.* doi:10.1016/j.petrol.2006.01.013
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NOTE: This document contains a listing of all published reports and professional presentations relating to work supported by DOE's Non-Section 999 program. While many of these reports are "shared" publications, with support being obtained from several funding sources, we have endeavored to include only those reports in which the DOE's contribution was meaningful and substantial.

