

James M. Brooks

President and C.E.O. TDI - Brooks International Inc.
Director, B&B Laboratories Inc.
President, GEO3 Inc.
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Education

Ph.D. Oceanography, Texas A&M University, 1975
M.S., Oceanography, Texas A&M University, 1970
B.S., Chemistry, Abilene Christian University, 1969

Professional Training

ISM Code Maritime Auditor/Lead Auditor, 2006
Accident Investigation and Root Cause Analysis, 2006
Advanced Safety Auditing, 2006
BP HSE Contractor HSE Symposium, 2001, 2002
Behavioral Based Safety Now Conference, 2001, 2002
OSHA Injury and Illness Record Keeping Training Session, 2002
Data Quality, 1998
Environmental Regulation Course, 1995

Professional Experience

President and C.O.O, TDI - Brooks International Inc., 1996-Present.
Director, B&B Laboratories Inc., 1996-Present.
President, GEO3 Inc., 1998-Present.
Senior Scientist, Arctic Research Institute, University of Alaska-Fairbanks, UAF, 1996-2000.
Director, Geochemical and Environmental Research Center, College of Geosciences, Texas A&M University, 1987-Sept. 1995.
Director, Geochemical and Environmental Research Group, College of Geosciences, Texas A&M University, 1984-Sept. 1995.
Faculty Member, Department of Toxicology, Texas A&M University, 1994-Present.
Senior Research Scientist and Senior Lecturer, Department of Oceanography, College of Geosciences, Texas A&M University, 1985-1996.
Associate Research Scientist, Department of Oceanography, Texas A&M University, 1981-1985.
Lecturer, Department of Oceanography, College of Geosciences, Texas A&M University, 1979-1996.
Assistant Research Scientist, Department of Oceanography, College of Geosciences, Texas A&M University, 1976-1980.
Graduate Faculty Member, Texas A&M University, 1978-2000.

Research Associate, Department of Oceanography, College of Geosciences, Texas A&M University, 1973-1976.

Research Associate, Ocean Affairs Board of the National Academy of Sciences, 1973.

Research Associate, Department of Oceanography, College of Geosciences, Texas A&M University, 1969-1972.

Selected Professional Activities/Awards

NOAA's Undersea Research Center at UNCW (NURC), January 2005 to present.

Invited Member, Consortium of Oceanographic Research and Education (CORE), Economic Development Committee, Partnership for Stakeholders in the Ocean's Report, July 1995.

Invited Participant, Int'l Arctic Monitoring and Assessment Program Meeting, Tromsø, Norway, March 1993.

Organizing Committee Member, Second International Ocean Pollution Symposium (2IOPS), 1993.

U.S. EPA, Science Advisory Board, Ecological Processes and Effects Committee, Marine Monitoring Task Group; member of a review team for draft monitoring guidance document for the National Estuary Program, 1991.

Estuarine Assessment and Contaminant Problem Identification, Member, EPA-sponsored workshop, Biloxi, MS, 23 - 25 April, 1991.

Ad Hoc Advisory Committee on the NOAA Undersea Research Program (NURP), 1991.

Marine Organic Geochemistry Workshop, December 1990, Honolulu, HA, sponsored by NSF and ONR; Invited participant, December 1990.

Faculty Distinguished Achievement Award for Research - Association of Former Students of Texas A&M University, May 1988.

Organic Geochemist, Deep Sea Drilling Project, Leg 96, 1983.

National Science Foundation, Marine Chemistry Proposal Review Panelist, August 1984.

Executive Committee Member, Third International Ocean Dumping Symposium, Woods Hole, Mass., 1981.

Selected Publications

Over 210 peer-reviewed publications including:

MacDonald, Ian R., Leslie C. Bender, Michael Vardaro, Bernie Bernard, James M. Brooks, Thermal and visual time-series at a seafloor gas hydrate deposit on the Gulf of Mexico slope, *Earth & Planetary Sciences Letters*, 233, 45-59, 2005

MacDonald, I.R., G. Bohrmann, E. Escobar, F. Abegg, P. Blanchon, V. Blinova, W. Bruchmann, M. Drews, A. Eisenhauer, X. Han, K. Heeschen, F. Meier, C. Mortera, T. Naehr, B.

Orcutt, B. Bernard, J. Brooks and M. de Farago, Asphalt Volcanism and Chemosynthetic Life in the Campeche Knolls, Gulf of Mexico, *Science*, 304, 999-1002, 2004.

Nagihara, S., J.M. Brooks, B.B. Bernard, N. Summer, G. Cole and T. Lewis, Application of marine heat flow data: Importance in oil and gas exploration, *Oil and Gas Journal*, 100.27, 43-49, 2002.

Sericano, J.L., J.M. Brooks, M.A. Champ, M.C. Kennicutt II and V.V. Makeyev, Trace contaminant concentrations in the Kara Sea and its adjacent rivers, Russia, *Marine Pollution Journal*, 42(11): 1017-1030, 2001.

Cole, G.A., A. Yu, F. Peel, R. Requejo, J. DeVay, J.M. Brooks, B.B. Bernard, J. Zumberge and S. Brown, Constraining source and charge risk in deepwater areas, *World Oil*, 69-77, October, 2001.

M.A. Champ, L.S. Gomez, V.M. Makeyev, J.M. Brooks, H.D. Palmer, and F. Betz (Guest Editors). Contaminants in the Arctic (Part III). *Marine Pollution Bulletin*, 43, (1-6), pp.1-142, January - June, 2001.

Champ, M.A., L.S. Gomez, V.M. Makeyev, J.M. Brooks, H.D. Palmer, and F. Betz, Ocean storage of nuclear wastes? Experiences from the Russian Arctic, *Marine Pollution Journal*, 42 (1-6): 1-7, 2001.

Kim, Y., E.N. Powell, T.L. Wade, B.J. Presley and J.M. Brooks, The geographic distribution of population health and contaminant body burden in the Gulf of Mexico oyster, *Archives of Environmental Contamination and Toxicology*, 4: 30-46, 2001.

Krishnamurthy, R.V., M. Machavaram, M. Baskaran, J.M. Brooks and M.A. Champ, Organic carbon flow in the Ob, Yenisey Rivers and Kara Sea of the Arctic region, *Marine Pollution Journal*, 42(9): 726-732, 2001.

Champ, M.A., V.M. Makeyev, J.M. Brooks and T.E. Delaca, (Guest Editors), Special Issue: Contamination in the Arctic, Part II, *Marine Pollution Journal*, Vol. 40(10), 2000.

Champ, M.A., T.E. Delaca, V.M. Makeyev and J.M. Brooks (Guest Editors), Special Issue: Contamination in Aquatic Watersheds of the Russian Arctic, *Chemosphere*, Vol. 42(1), 1-102, 2000.

Brooks, J.M., W.R. Bryant, B.B. Bernard and N.R. Cameron, The nature of gas hydrates on the Nigerian continental margin, In: *Gas Hydrates, Challenges for the Future* (G.D. Holder and P.R. Bishnoi, Eds.), *Annals of the New York Academy of Sciences*, 192: 76-94, 2000.

Baskaran, M., S. Asbill, J. Schwantes, P. Santchi, M.A. Champ, J.M. Brooks, D. Adkinson and V. Makeyev, Concentrations of ¹³⁷Cs, ^{239,240}Pu and ²¹⁰Pb in sediment samples from the Pechora Sea and biological samples from the Ob, Yenisey Rivers and Kara Sea, *Marine Pollution Journal*, 40(10): 830-838, 2000.

Kim, Y., E.N. Powell, T.L. Wade, B.J. Presley and J.M. Brooks, Influence of climate change on interannual variation in contaminant body burden in Gulf of Mexico oysters, *Marine Environmental Research*, 48: 459-488, 1999.

Jackson, T.J., T.L. Wade, J.L. Sericano, J.M. Brooks, J.M. Wong, B. Garcia-Romero and T.J. McDonald, Galveston Bay: Temporal changes in the concentrations of trace organic contaminants in National Status and Trends oysters (1986-1994), *Estuaries*, 21(4B): 718-720, 1998.

Champ, M.A., V.M. Makeyev, J.M. Brooks, T.E. Delaca, K.M. van der Hores, and M.V. Engle, Assessment of the impact of nuclear wastes in the Russian Arctic, *Marine Pollution Journal*, 35(7-12): 203-221, 1998.

Champ, M.A., V.M. Makeyev, J.M. Brooks and T.E. Delaca, (Guest Editors), Special Issue: Contamination in the Arctic, Part I, *Marine Pollution Journal*, Vol. 35(7-12), 1997.

Kennicutt, M.C. II, P.N. Boothe, T.L. Wade, S.T. Safe, R. Rezak, F.J. Kelly, J.M. Brooks, B.J. Presley and D.A. Wiesenburg, Geochemical patterns in sediments near offshore production platforms, Canadian Journal of Fisheries and Aquatic Science, 53: 2554-2566, 1996.

Baskaran, M., S. Asbill, P.H. Santschi, J.M. Brooks, M.A. Champ, D. Adkison, M. Colmer and V. Makeyev, Pu, ¹³⁷Cs and excess ²¹⁰Pb in Russian Arctic Sediments, Earth and Planetary Science Letters, 140: 243-257, 1996.

Sericano, J.L., T.L. Wade and J.M. Brooks, Accumulation and depuration of organic contaminants by the American Oyster (*Crassostrea Virginica*), Science and the Total Environment, 179: 149-160, 1996.

Reilly II, J.F., I.R. MacDonald, E.K. Biegert, J.M. Brooks, Geologic controls on the distribution of chemosynthetic communities in the Gulf of Mexico In Hydrocarbon Migration and Its Near-Surface Expression (Eds. D. Schumacher and M.A. Abrams) AAPG Memoir, 66: 38-61, 1996.

Hvoslef, S., O.H.J. Christie, R. Sassen, M.C. Kennicutt II, A.G. Requejo, and J.M. Brooks, Test of a new surface geochemistry tool for resource prediction in frontier areas, Marine and Petroleum Geology, 13: 107-124, 1996.

Chambers, L., T.L. Wade, P. Gardinali and J.M. Brooks, NIST SRM 1945, whale blubber, NIST SRM 1974, organics in mussel tissue, and NIST SRM 1941a, organics in marine sediment as certified reference materials for polychlorinated dioxins and furans in marine ecosystems, Chemosphere, 32: 25-30, 1996.

Chambers, L., T.L. Wade, P. Gardinali and J.M. Brooks, NIST SRM 1945, whale blubber, NIST SRM 1994, organics in mussel tissue and NIST SRM 1941a, organics in marine sediments as certified reference materials for polychlorinated dioxins and furans in marine ecosystems, Chemosphere, 32: 25-30, 1996.

Gardinali, P.R., T.L. Wade, L. Chambers and J.M. Brooks, A complete method for the quantitative analysis of planar, mono, and diortho PCBs, polychlorinated dibenzo dioxins and furans and environmental samples, Chemosphere, 32: 1-11, 1996.

Sericano, J.L., T.L. Wade and J.M. Brooks, Accumulation and depuration of organic contaminants by the American Oyster (*Crassostrea Virginica*), Science and the Total Environment, 179: 149-160, 1996.

Sericano, J.L., T.L. Wade and J.M. Brooks, Accumulation and depuration of organic contaminants by the American Oyster (*Crassostrea Virginica*), Science and the Total Environment, 179: 149-160, 1996.

Yu, Y., T.L. Wade, J. Fang, J.M. Brooks and S.J. McDonald, Production of PAH metabolites in Antarctic fish (*Notothenia gibberifrons*) dosed with Diesel Fuel Arctic and its implications to environmental monitoring, Archives of Environmental Contamination and Toxicology, 29: 241-246, 1995.

Baskaran, M., S. Asbill, P.H. Santschi, T.F. Davis, J.M. Brooks, M.A. Champ, V. Makeyev and V. Khlebovich, Distribution of ^{239,240}Pu concentrations in sediments from the Ob and Yenisey Rivers and the Kara Sea, Applied Radiation and Isotopes, 46(11): 1109-1119, 1995.

Sericano, J.L., T.L. Wade, T.J. Jackson, J.M. Brooks, B.W. Tripp, J.W. Farrington, L.D. Mee, J.W. Readmann, J.P. Villeneuve and E.D. Goldberg, Trace organic contamination in the Americas: an overview of the US National Status and Trends and the International 'Mussel Watch' programmes, Marine Pollution Bulletin, 31 (4-12): 214-225, 1995.

Champ, M.A., J.M. Brooks, V.V. Makeyev, T.L. Wade, M.C. Kennicutt II and M. Baskaran, Preliminary results of studies of industrial and nuclear contaminants in the Ob and Yenisey Rivers and the Kara Sea to assess the environmental and human health risks in the Russian Arctic. In *Ocean Pollution in the Arctic North and the Russian Far East: Proceedings from the Ocean Pollution Session of the Conference "Bridges of Science Between North America and the Russia Far East, Vladivostok, Russia, 1 September 1994*, edited by E.J.Kirk, American Association for the Advancement of Science, pp. 28-65, 1995.

Kennicutt, M.C. II, W.W. Schroeder and J.M. Brooks, Temporal and spatial variations in sediment characteristics on the Mississippi-Alabama continental shelf, *Continental Shelf Research*, 15(1): 1-18, 1995.

Salata, G.G., T.L. Wade, J.L. Sericano, J.W. Davis and J.M. Brooks, Analysis of Gulf of Mexico bottlenose dolphins for organochlorine pesticides and PCBs, *Environmental Pollution*, 88: 167-175, 1995.

Sassen, R., I.R. MacDonald, A.G. Requejo, N.L. Guinasso Jr., M.C. Kennicutt II, S.T. Sweet and J.M. Brooks, Organic geochemistry of sediments from chemosynthetic communities. Gulf of Mexico slope, *Geo-Marine Letters*, 14: 110-119, 1994.

Sericano, J.L., S.H. Safe, T.L. Wade and J.M. Brooks, Toxicological significance of non-, mono- and diortho substituted polychlorinated biphenyls in oysters from Galveston and Tampa Bays, *Environmental Toxicology and Chemistry*, 31: 1797-1803, 1994.

Brooks, J.M., A.L. Anderson, R. Sassen, I.R. MacDonald, M.C. Kennicutt II and N.L. Guinasso, Jr., Hydrate occurrences in shallow subsurface cores from the continental slope sediments, *Annals of the New York Academy of Sciences*: 715: 381-391, 1994.

MacDonald, I.R., N.L. Guinasso, Jr., R. Sassen, J.M. Brooks, L. Lee and K.T. Scott, Gas hydrates that breaches the sea floor on the continental slope of the Gulf of Mexico, *Geology*, 22: 699-702, 1994.

Sericano, J.L., S.H. Safe, T.L. Wade and J.M. Brooks, Toxicological significance of non-, mono- and diortho substituted polychlorinated biphenyls in oysters from Galveston and Tampa Bays, *Environmental Toxicology and Chemistry*, 13 (11): 1797-1803, 1994.

Ukpabio, E., P.A. Comet, R. Sassen and J.M. Brooks, Triterenes in a Nigerian oil, *Organic Geochemistry*, 22 (2): 323-329, 1994

Childress, J.J., R.W. Lee, N.K. Sanders, H. Feldbeck, D.R. Oros, A. Toulmond, D. Desbruyeres, M.C. Kennicutt, and J.M. Brooks, Inorganic carbon uptake in hydrothermal vent tubeworms facilitated by high environmental pCO₂, *Nature*, 362(6416): 147-149, 1993.

Krahn, M.M., G.M. Ylitalo, J. Buzitis, S-L Chan, U. Varanasi, T.L. Wade, T.J. Jackson, J.M. Brooks, D.A. Wolff, and C.A. Manen, Comparison of HPLC/Fluorescence screening and GC/MS analysis for aromatic compounds in sediments sampled after the EXXON VALDEZ oil spill, *Environmental Science and Technology*, 27(4): 699-708, 1993.

Sassen, R., J.M. Brooks, M.C. Kennicutt, I. MacDonald, and N.L. Guinasso, Jr., How oil seeps, discoveries relate in the deep-water Gulf of Mexico, *Oil and Gas Journal*, pp. 64-69, April 19th, 1993.

Sericano, J.L., T.L. Wade, J.M. Brooks, E.L. Atlas, R.R. Fay, and D.L. Wilkinson, National status and trends mussel watch program: chlordane-related compounds in Gulf of Mexico oysters, 1986-1990, *Environmental Pollution*, 82: 23-32, 1993.

Garcia-Romero, B., T.L. Wade, G.G. Salata, and J.M. Brooks, Butyltin concentrations in oysters from the Gulf of Mexico during 1989-1991, *Environmental Pollution*, 81: 103-111, 1993.

MacDonald, I.R., N.L. Guinasso, S.G. Ackleson, J.F. Amos, R. Duckworth, R. Sassen and J.M. Brooks, Natural oil slicks in the Gulf of Mexico visible from space, *Journal of Geophysical Research*, 98(9): 16,351-16,364, 1993.

Kennicutt, M.C. II, J.M. Brooks, and H. Benjamin Cox, The origin and distribution of gas hydrates in Marine Sediments. In *Organic Geochemistry*, edited by M.H. Engel and S.A. Macko, Plenum Press, New York, Chapter 24, pp. 535-544, 1993.

Comet, P.A., J.K. Rafalska and J.M. Brooks, Sterane and triterpane patterns as diagnostic tools in the mapping of oils, condensates and source rocks of the Gulf of Mexico region, *Organic Geochemistry*, 20(8): 1265-1296, 1993.

Fisher, C.R., J.M. Brooks, J.S. Vodenichar, J.M. Zande, J.J. Childress and R.A. Burke Jr., The co-occurrence of methanotrophic and chemoautotrophic sulfur-oxidizing bacterial symbionts in a deep-sea mussel, *Marine Ecology*, 14(4): 277-289, 1993.

Fang, J., P.A. Comet, T.L. Wade, and J.M. Brooks, Gulf of Mexico hydrocarbon seep communities: IX. Sterol biosynthesis of seep mussels and its implications for host-symbiont association, *Organic Geochemistry*, 18(6): 861-867, 1992.

Kennicutt, M.C. II, R.A. Burke, I.R. MacDonald, J.M. Brooks, G.J. Denoux, and S.A. Macko, Stable isotope partitioning in seep and vent organisms: chemical and ecological significance, *Chemical Geology (Isotope Geoscience Section)*, 101: 293-310, 1992.

McDonald, S.J., M.C. Kennicutt, and J.M. Brooks, Evidence for polycyclic aromatic hydrocarbon (PAH) exposure in fish from the Antarctic peninsula, *Marine Pollution Bulletin*, 25:313-317, 1992.

Sericano, J.L., T.L. Wade, A.M. El-Husseini, and J.M. Brooks, Environmental significance of the uptake and depuration of planar PCB congeners by the American oyster, *Crassostrea virginica*, *Marine Pollution Bulletin*, 24: 537-543, 1992.

Kennicutt, M.C. II, T.J. McDonald, P.A. Comet, G.J. Denoux, and J.M. Brooks, The origins of petroleum in the northern Gulf of Mexico, *Geochemica et Cosmochimica Acta*, 56(3):1259-1280, 1992.

Kennicutt, M.C. II, J.M. Brooks, and T.J. McDonald, Origins of hydrocarbons in Bering Sea sediments --- I. Aliphatic hydrocarbons and fluorescence, *Organic Geochemistry*, 17(1):75-83, 1991.

Brooks, J.M., M.E. Field, and M.C. Kennicutt II, Observations of gas hydrates offshore northern California, *Marine Geology*, 96: 103-109, 1991.

Brooks, J.M., M.A. Champ, T.L. Wade, and S.J. McDonald, GEARS: Response strategy for oil and hazardous spills, *Sea Technology*, 25-32, April 1991.

Wade, T.L., B. Garcia-Romero, and J.M. Brooks, Oysters as biomonitors of butyltins in the Gulf of Mexico, *Marine Environmental Research*, 32: 233-241, 1991.

Thompson, K.F., M.C. Kennicutt II, and J.M. Brooks, Classification of offshore Gulf of Mexico oils and gas condensates, *American Association of Petroleum Geologists Bulletin*, 74(2): 187-198, 1990.

Fisher, C.R., M.C. Kennicutt, and J.M. Brooks, Carbon isotopic evidence for carbon limitation in hydrothermal vent Vestimentiferans, *Science*, 247: 193-197, 1990.

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Scientific Services On A Global Basis

MacDonald, I.R., J.F. Reilly II, N.L. Guinasso, Jr., J.M. Brooks, R.S. Carney, W.A. Bryant, and T.J. Bright, Chemosynthetic mussels at a brine-filled pockmark in the northern Gulf of Mexico, *Science*, 248: 1096-1099, 1990.

Brooks, J.M., M.C. Kennicutt II, T.L. Wade, A.D. Hart, G.J. Denoux, and T.J. McDonald, Hydrocarbon distributions around a shallow water multiwell platform, *Environmental Science and Technology*, 24(7): 1079-1085, 1990.

Brooks, J.M., D.A. Wiesenburg, H. Roberts, R.S. Carney, I.R. MacDonald, R.A. Burke, Jr., P. Ahron, and T.J. Bright, Salt, seeps and symbiosis in the Gulf of Mexico: a preliminary report of deep water discoveries using DSV Alvin, EOS, *Transactions Am. Geophysical Union*, 74(45): 1772-1773, 1990.

Sericano, J.L., T.L. Wade, E.L. Atlas, and J.M. Brooks, Historical perspective on the environmental bioavailability of DDT and its derivatives to Gulf of Mexico oysters, *Environmental Science and Technology*, 24: 1541-1548, 1990.