



U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region

Technical Announcement

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Stability and Change in Gulf of Mexico Chemosynthetic Communities
Volume I: Executive Summary
Volume II: Final Report

OCS Study [MMS 2002-035](#) & [MMS 2002-036](#)

The Minerals Management Service (MMS), Gulf of Mexico OCS Region, announces the availability of a new study report, *Stability and Change in Gulf of Mexico Chemosynthetic Communities, Volume I: Executive Summary* and *Volume II: Final Report*.

This report provides information on the scientific results from the program of the same name, an MMS-funded survey of natural hydrocarbon/sulfide seeps supporting chemosynthetic communities in the northern Gulf of Mexico. The investigators represented the Geochemical and Environmental Research Group at the Texas A&M University, with additional ones from seven other academic institutions and one consulting company. This study, a follow-on investigation of MMS's "Chemosynthetic Ecosystems Study" (1995), continued investigations of selected communities over the upper continental slope from 500-700 m deep (about 60-80 nmi offshore), primarily in the MMS Central Planning Area. Here, there has been a remarkable acceleration of oil and gas activity.

Several sites were chosen for additional detailed *in situ* study with manned *Johnson-Sea-Link* submersibles based on their respective geological, geochemical, and biological characteristics. Repeat submersible surveys and growth experiments were conducted. Photomosaics were made for the detection of community structure and determination of changes with time. Additional surface geophysical cruises were made in selected areas. This study provides important information on community ecology and structure; physical, electrochemical, and geochemical characterization of seep habitats; trophic dynamics; and the biogeochemistry and stability of these ecosystems. These findings have major implications for the management of the MMS oil and gas program on the northern Gulf of Mexico continental slope and the protection of these remarkable animals.

This report is available only in compact disc format. The discs are available from the Minerals Management Service, Gulf of Mexico OCS Region, at a charge of \$20.00 by referencing OCS Study MMS 2002-035 and MMS 2002-036. You will be able to obtain this report also from the National Technical Information Service in the near future. Here are the addresses. You may also inspect copies at selected Federal Depository Libraries.

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Gulf of Mexico OCS Region
Public Information Office (MS 5034)
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394
Telephone requests may be placed at
(504) 736-2519 or 1-800-200-GULF
or FAX: (504) 736-2620

U.S. Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22161
(703) 487-4650 or FAX: (703) 321-8547
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MMS is the federal agency in the U.S. Department of the Interior that manages the nation's oil, natural gas and other mineral resources on the outer continental shelf in federal offshore waters. The agency also collects, accounts for and disburses mineral revenues from federal and Indian leases. These revenues totaled nearly \$10 billion in 2001 and more than \$120 billion since the agency was created in 1982. Annually, nearly \$1 billion from those revenues go into the Land and Water Conservation Fund for the acquisition and development of state and federal park and recreation lands.

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MMS's Website Address: <http://www.mms.gov>

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