The MMRI has a number of programs which focus on various aspects of the Institute's responsibilities. It is our intent to review a different program for each Newsletter. With current heightened public interest in energy issues, the Energy Program was selected to be reviewed in this Newsletter. Because of space limitations, details regarding the Energy Program have not been included here, but can be obtained by contacting the MMRI. We welcome your comments and suggestions.

The Energy Program is subdivided into three focus areas. These include:

1) Environmental Petroleum
2) Infrastructure / Governmental Support
3) Production / Alternative Fuels

MMRI work in the Environmental Petroleum focus area is presently centered on radioactive scales which are produced as a by-product of hydrocarbon production. On-going work is building on the recently completed work sponsored by the U.S. Department of Energy. Funding is being sought to investigate better and more economical disposal methods for radioactive scales and to develop a better understanding of how these barium sulfate scales interact with the surface environment.

The work in the Infrastructure / Governmental Support focus area is aimed at updating the set of natural gas pipeline maps constructed by the MMRI over a decade ago for the Municipal Gas Authority of Mississippi. These updates will contain not only new lines, but other infrastructure as well, such as gas storage fields and compressor stations. These maps should be useful not only to the energy industry, but to other sectors of the economy as well.

The Production / Alternative Fuels area is focused on the production of methane from coal and lignite beds in Mississippi. Of particular interest, are the bituminous coals (Paleozoic) within the subsurface of Mississippi Interior Salt basin where brines tend to produce scale within flow lines and production tubing.
the Black Warrior Basin. In 1992 a well was drilled in Clay County to test the potential these coals had to generate methane. At $1.50 per MCF the well was deemed uneconomic. Today, however, with gas in excess of $6.00 per MCF, production of methane from marginal wells becomes much more attractive and coal bed methane production in the Black Warrior Basin deserves to be re-evaluated. The MMRI is also seeking funding to further investigate the potential of generating methane from Mississippi's abundant lignite resources. In the area of conventional field analysis, the Mize Field (Smith County) has been chosen. This field investigation will be the first of a series of field studies aimed at compiling information useful to the industry. For more information on the Mize Field Investigation, please visit our website.

The MMRI and the Energy Program in particular, is appreciative of the support from other Mississippi universities, state governmental agencies and the hydrocarbon industry. The MMRI looks forward to working closely with all these stakeholders as we work for a brighter future for energy in Mississippi.

Carol Lutken attended the 54th Annual meeting of the GCAGS in San Antonio, October 10-12, 2004, and presented two posters, entitled “Within Five Years, Hydrate Exploitation Can Be a Reality in the Northern Gulf of Mexico” and “Multiple Outer Shelf Deltas and Downslope Massive Mass-Wastings Characterize the Mississippi Canyon, Northern Gulf of Mexico”. Both topics are examined in greater detail and are included as

Example of Gas Pipeline maps produced for MGAM by MMRI and available online in PDF format

The subsurface equivalent of the lignite pictured above could be a new source of natural gas in Mississippi

ANNUAL MEETING OF THE GULF COAST ASSOCIATION OF GEOLOGICAL SOCIETIES

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full-length, peer-reviewed papers in the Transactions of the convention. They represent some of the results of the work members of the MMRI/CMRET are doing in the effort to characterize the geologic environments that host significant volumes of gas hydrates in the northern Gulf.

GOM-HRC, administered by the CMRET, once again held its fall meeting in Oxford. The meeting, attended by forty workers – geochemists, microbiologists, geologists, geophysicists, engineers, oceanographers, computer software designers and data systems management experts, was productive. A final selection for the site of the first-ever deep ocean, sea floor monitoring station that will be deployed by the group in 2005, was determined, and a rough deployment schedule published. A CD including the meeting presentations and a station update was published in November.