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“Basin Analysis and Petroleum System Characterization and Modeling, Interior Salt Basins, Central and Eastern Gulf of Mexico”

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## **Abstract**

The principal research effort for Year 3 of the project is basin modeling and petroleum system identification, comparative basin evaluation and resource assessment. In the first six (6) months of Year 3, the research focus is on basin modeling and petroleum system identification and the remainder of the year the emphasis is on the comparative basin evaluation and resource assessment. No major problems have been encountered to date, and the project is on schedule.

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# **“Basin Analysis and Petroleum System Characterization and Modeling, Interior Salt Basins, Central and Eastern Gulf of Mexico”**

First Quarter Report for Year 3  
May 1, 2005—July 31, 2005

## **Introduction**

The University of Alabama and Louisiana State University have undertaken a cooperative 5-year, fundamental research project involving sedimentary basin analysis and petroleum system characterization and modeling of the North Louisiana Salt Basin and Mississippi Interior Salt Basin. According to the USGS, the hydrocarbon volume of these basins ranks them in the top 8% of the most petroliferous basins of the world.

## **Executive Summary**

The principal research effort for Year 3 of the project is basin modeling and petroleum system identification, comparative basin evaluation and resource assessment. In the first six (6) months of Year 3, the research focus is on basin modeling and petroleum system identification and the remainder of the year the emphasis is on the comparative basin evaluation and resource assessment. No major problems have been encountered to date, and the project is on schedule.

## **Project Objectives**

The principal objectives of the project are to develop through basin analysis and modeling the concept that petroleum systems acting in a basin can be identified through basin modeling and to demonstrate that the information and analysis resulting from characterizing and modeling of these petroleum systems in the North Louisiana Salt Basin and the Mississippi Interior Salt Basin can be used in providing a more reliable and advanced approach for targeting stratigraphic traps and specific reservoir facies within a geologic system and in providing a refined assessment of undiscovered and underdeveloped reservoirs and associated oil and gas resources.

## **Experimental**

### Work Accomplished

*Basin Modeling and Petroleum System Identification* – Modeling of the North Louisiana Salt Basin has been initiated. Versions of the software, BasinView and BasinFlow, to facilitate the modeling of this basin have been acquired from Platte River.

## Work Planned

*Basin Modeling and Petroleum System Identification* – Basin modeling of the North Louisiana Salt Basin will be completed, and petroleum systems determined to be active in the basin will be evaluated.

## **Results and Discussion**

No major problems have been encountered at this point. We are working with companies operating in the basin to acquire selective seismic profiles in this study.

## **Conclusions**

The project work is on schedule.

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**Table 1**  
**Milestone Chart—Year 3**

	M	J	J	A	S	O	N	D	J	F	M	A
Basin Modeling & Petroleum System Identification	■											
	xxx	xxx	xxx									
Comparative Basin Evaluation								■				
Resource Assessment											■	
Work Planned	■											
Work Accomplished	xxx											