

**PROJECTED HYDROCARBON WINDOWS
WITHIN THE FRONTAL IMBRICATE THRUST BELT - ZONE 1**
MEAN Ro 10.6%

HYDROCARBON THRESHOLD	PROJECTED DEPTH
Oil Generation Window (0.8-1.0 % Ro)	Surface - 5,250'
Gas Generation Threshold (1.0 % Ro)	Eroded
Oil Preservation Basement (1.3 % Ro)	8,000'
End of Gas Generation/ Spent Source Rocks (2.0 % Ro)	13,000'
Gas Preservation Basement (4.0 % Ro)	18,500'

**PROJECTED HYDROCARBON WINDOWS
WITHIN THE POTATO HILLS/KIAMICHI ANTICLINE - ZONE 2**
MEAN Ro 9.7%

HYDROCARBON THRESHOLD	PROJECTED DEPTH
Oil Generation Window (0.8-1.0 % Ro)	Surface - 3,250'
Gas Generation Threshold (1.0 % Ro)	Surface - 2,250'
Oil Preservation Basement (1.3 % Ro)	Surface - 6,500'
End of Gas Generation/ Spent Source Rocks (2.0 % Ro)	Surface - 11,000'
Gas Preservation Basement (4.0 % Ro)	Surface - 18,500'

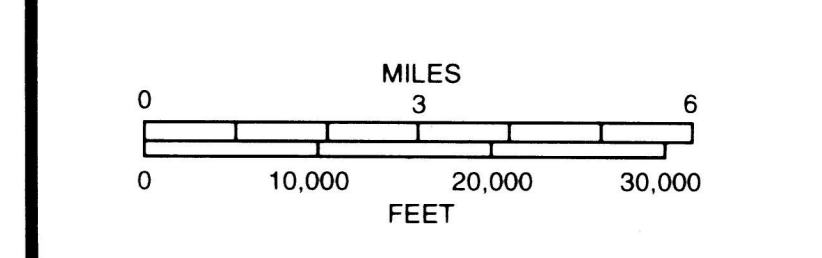
**PROJECTED HYDROCARBON WINDOWS
WITHIN THE INTERIOR FOLDBELT - ZONE 3**
MEAN Ro 11.1%

HYDROCARBON THRESHOLD	PROJECTED DEPTH
Oil Generation Window (0.8-1.0 % Ro)	Eroded
Gas Generation Threshold (1.0 % Ro)	Eroded
Oil Preservation Basement (1.3 % Ro)	2,000'
End of Gas Generation/ Spent Source Rocks (2.0 % Ro)	8,500'
Gas Preservation Basement (4.0 % Ro)	13,000'

**PROJECTED HYDROCARBON WINDOWS
WITHIN THE CORE AREA - ZONE 4**
MEAN Ro 3.0%

HYDROCARBON THRESHOLD	PROJECTED DEPTH
Oil Generation Window (0.8-1.0 % Ro)	Eroded
Gas Generation Threshold (1.0 % Ro)	Eroded
Oil Preservation Basement (1.3 % Ro)	Eroded
End of Gas Generation/ Spent Source Rocks (2.0 % Ro)	Eroded
Gas Preservation Basement (4.0 % Ro)	2750'

- KEY**
- 0.6 ISOREFLECTANCE CONTOURS
 - GEOCHEM SURVEY
 - 173 SAMPLE IDENTIFICATION
 - 177 Ro (mean Vitrinite Reflectance Value)
 - 0.6% Ro IMMATURE SEDIMENTS
 - 0.6-1.0% Ro HYDROCARBON GENERATION WINDOW
 - 0.8% Ro REFERENCE CONTOUR
 - 1.0% Ro GAS GENERATION THRESHOLD
 - 1.3% Ro OIL PRESERVATION BASEMENT
 - 2.0% Ro END OF GAS GENERATION/ SPENT SOURCE ROCKS
 - 3.0% Ro REFERENCE CONTOUR
 - 4.0% Ro GAS PRESERVATION BASEMENT
- PROGRAM LEGEND**
- 1981 SAMPLING PROGRAM
 - 1983 SAMPLING PROGRAM
 - MATHÉW'S M. S. THESIS
 - GEOCHEM OUTCROP DATA
 - 1983-1985 SHOTPOINT DATA
 - ◆ WELLS WITH GEOCHEMISTRY
 - ◇ WELLS WITHOUT GEOCHEMISTRY
 - ▲ SURFACE ASPHALT OCCURRENCE
 - 34° API GRAVITY-OIL



SOHIO SOHIO PETROLEUM COMPANY
MID-CONTINENT DIVISION
QUACHITA OVERTHRUST
SE OKLAHOMA
WELLS HEADLOGS PROJECT
PRELIMINARY SEDIMENT
THERMAL MATURITY TREND MAP
(Based on Stanley Group Undifferentiated;
Weighted Towards Sels-Line Data)

**ZONATION OF THE
QUACHITA OVERTHRUST
OF SE OKLAHOMA
WITH RESPECT TO COMMERCIAL
HYDROCARBON POTENTIAL**

SE OKLAHOMA
G.A. COLE
C.L. RAMOS

OCT 1985