PLATE 1. DOWNDIP LIMIT OF FRESHWATER IN THE COCKFIELD, SPARTA, AND CARRIZO AQUIFERS, SOUTHERN ARKANSAS, CENTRAL MISSISSIPPI, AND NORTHERN LOUISIANA.
PLATE 2. FINITE-DIFFERENCE GRID USED IN THE DETAILED THREE-DIMENSIONAL MODEL, LOCATION OF PUMPING NODES AND NO-FLOW BOUNDARIES FOR THE SPARTA AQUIFER, SOUTHERN ARKANSAS, CENTRAL MISSISSIPPI, AND NORTHERN LOUISIANA.
PLATE 3. TRANSMISSIVITY OF THE SPARTA AQUIFER AS USED IN THE CALIBRATED THREE-DIMENSIONAL MODEL, SOUTHERN ARKANSAS, CENTRAL MISSISSIPPI, AND NORTHERN LOUISIANA.
EXPLANATION
Model sensitivity measured by the difference between observed and computed drawdown.

- Sparta Sand outcrop
- Well site showing difference between observed and computed drawdown, in feet.

A. Model results from calibrated model

B. Model results with transmissivity 1.5 times the calibrated value of Sparta aquifer

C. Model results with vertical conductance 1.5 times the model calibrated value of Cook Mountain confining layer

Sparta Sand outcrop from J.N. Payne (1968)

PLATE 4. AREAL SENSITIVITY OF THE CALIBRATED MODEL TO CHANGES IN MODEL HYDROGEOLOGIC PARAMETERS, SOUTHERN ARKANSAS, CENTRAL MISSISSIPPI, AND NORTHERN LOUISIANA.
PLATE 5. POTENTIOMETRIC SURFACE OF THE SPARTA AQUIFER, 1900, FROM THE STEADY-STATE MODEL SIMULATION, SOUTHERN ARKANSAS, CENTRAL MISSISSIPPI, AND NORTHERN LOUISIANA.
PLATE 6. COMPUTED POTENTIOMETRIC SURFACE OF THE SPARTA AQUIFER, 1980, SOUTHERN ARKANSAS, CENTRAL MISSISSIPPI, AND NORTHERN LOUISIANA.
PLATE 7. LOCATION OF PROPOSED PUMPING CENTERS NEAR WEST MONROE, OUACHITA PARISH, LOUISIANA.