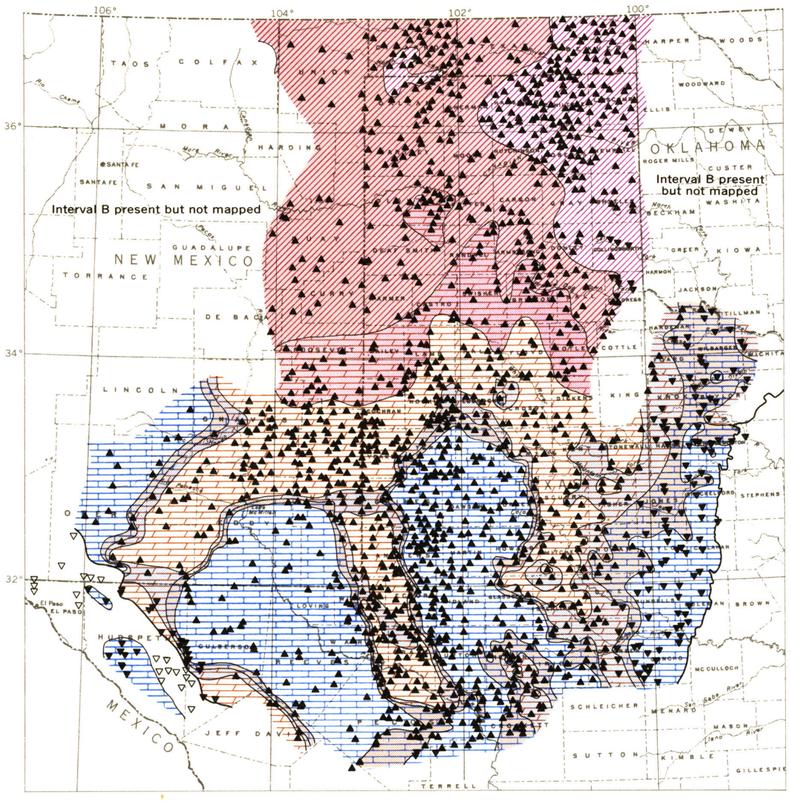
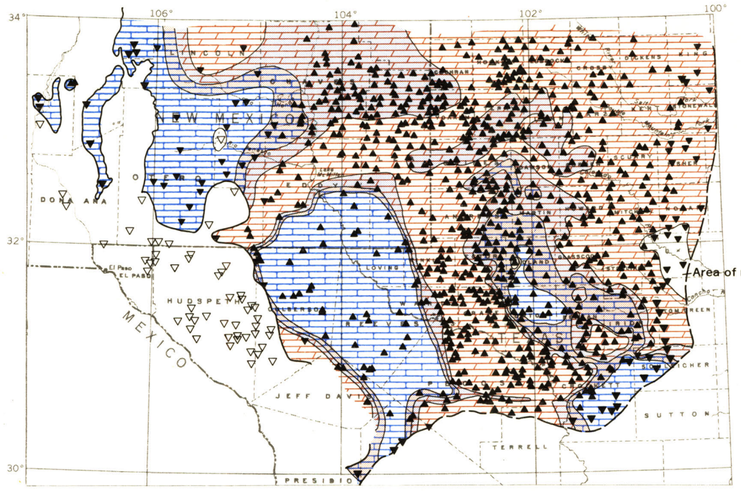
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

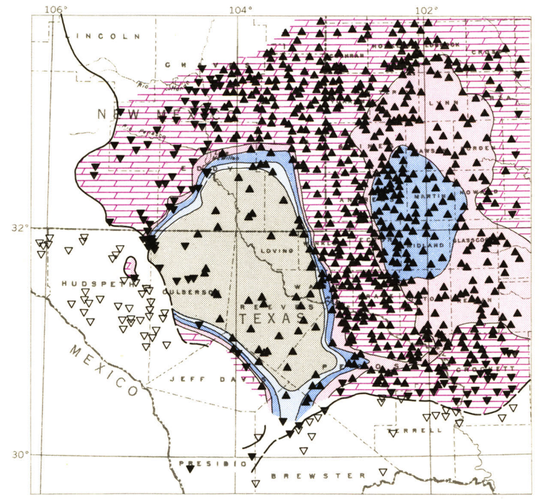
MISCELLANEOUS GEOLOGIC INVESTIGATIONS
MAP I-450 (PLATE 13)



A. RATIOS OF LIMESTONE TO DOLOMITE AND OF DOLOMITE TO ANHYDRITE IN INTERVAL B

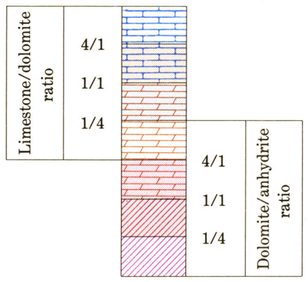


B. RATIO OF LIMESTONE TO DOLOMITE IN THE SAN ANDRES LIMESTONE



C. RELATION OF SHELF TO BASIN ROCKS IN INTERVAL C

EXPLANATION FOR *A* AND *B*



▲ ▼ Control points shown on plate 1
Triangles inverted where next higher interval (map A) or upper part of interval mapped (map B) is absent

▽ Control point shown on plate 1
Rocks of interval mapped are absent

Areal limit of rocks assigned to interval C
Dashed where control is poor

EXPLANATION FOR *C*

Interval consists entirely of shelf rocks

Upper and middle parts of interval consist of shelf rocks; lower, of basin or marginal rocks

Upper part of interval consists of shelf rocks; middle of marginal rocks; lower, of basin rocks

Most of interval consists of basin rocks except for upper part, which is of marginal rocks

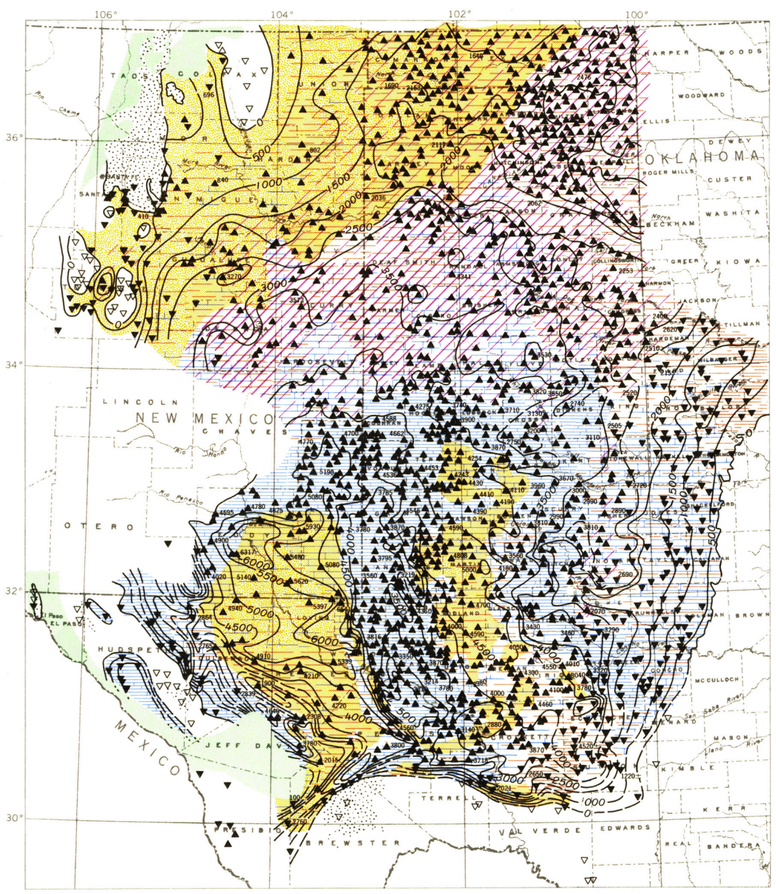
Interval consists entirely of basin rocks

Area of interval C rocks where shelf and basin rocks are not differentiated

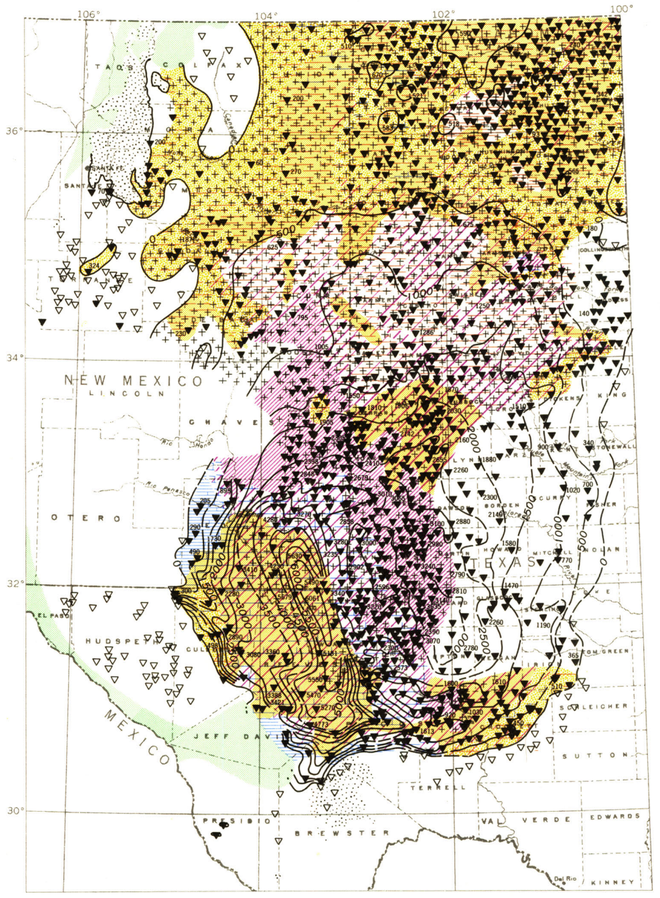
▲ ▼ Control points shown on plate 1
Triangles inverted where next higher interval of Permian is absent

▽ Control point shown on plate 1
Rocks of interval mapped are absent

Areal limit of rocks assigned to interval C
Dashed where control is poor

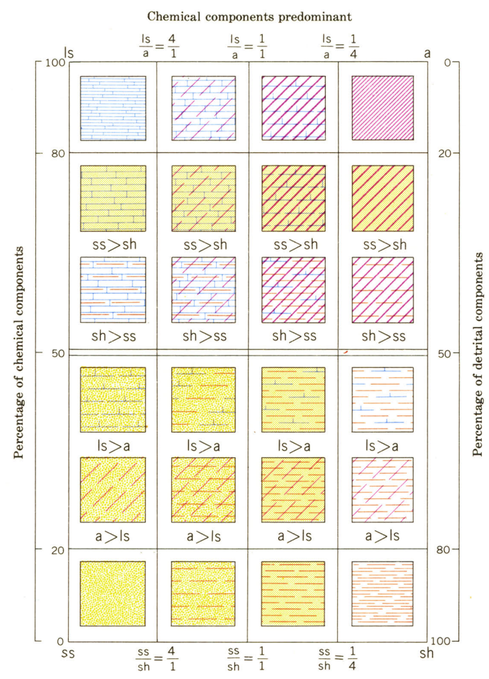


D. THICKNESS AND LITHOFACIES OF INTERVAL B AND THE LOWER PART OF INTERVAL C



E. THICKNESS AND LITHOFACES OF INTERVAL D AND THE UPPER PART OF INTERVAL D

EXPLANATION FOR *D* AND *E*



Abbreviations
a, Anhydrite and gypsum
ls, Limestone and dolomite
sh, Mudstone (includes claystone and siltstone)
ss, Sandstone

Lithofacies symbols for sedimentary rocks

—5000— Isopach
Dashed where control is poor. Interval 500 feet

▲ ▼342 Control points shown on plate 1
Triangles inverted where next higher interval (Permian or Triassic) is absent. Number is thickness, in feet

▽ Control point shown on plate 1
Rocks of interval mapped are absent

Area in vicinity of Permian rocks where older rocks are exposed

Area in vicinity of Permian rocks where pre-Permian rocks were not penetrated by drill

Area where mapped unit contains salt (minimum: 10 percent)

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1967—G64433

FACIES RELATIONS IN THE WEST TEXAS PERMIAN BASIN, TEXAS AND NEW MEXICO

By

S. S. Oriel, D. A. Myers, E. J. Crosby, G. H. Dixon, and E. D. McKee

SCALE 1:5 000 000

100 0 100 200 300 MILES

100 0 100 200 300 KILOMETERS

1967