

R. W. STAPP, Relation of Lower Cretaceous depositional environment to oil accumulation, northeastern Powder River basin, Wyoming
 MILTON O. CHILDERS, Reservoirs of lacustrine origin in Rocky Mountains—exploration criteria
 JOSEPH R. CLAIR, RICHARD W. VOLK, Pre-Permian Paleozoics of Las Animas arch—new oil province
 ROBERT W. SCOTT, Petroleum potential along south flank, San Juan basin, New Mexico

TUESDAY AFTERNOON, OCTOBER 25

New Influences in Petroleum Exploration

Presiding: JOHN W. ROLD, W. EARL WEST, JR.

LLOYD C. PRAY, PHILIP W. CHOQUETTE, Genesis of carbonate reservoir facies
 CHARLES H. HEWITT, Role of geology in reservoir engineering
 W. S. FREDERICK, SR., Abnormally high formation pressures at borehole and beyond
 GEORGE V. KELLER, Electrical prospecting methods in oil exploration
 H. B. EVANS, JOHN C. HARMS, PHILIP W. CHOQUETTE, GRAPE*—Device for continuous porosity determinations
 JOHN P. HOBSON, JR., Cyclic sedimentary sequences in Frontier Formation (Upper Cretaceous), Casper arch area, Wyoming, and some stratigraphic and possible paleoenvironmental implications
 FLOW IN ALLUVIAL CHANNELS: film prepared by Colorado State University, Engineering Research Center

WEDNESDAY MORNING, OCTOBER 26

Use of Sedimentary Structures in Petroleum Exploration

Presiding: R. DANA RUSSELL, WILSON M. LAIRD

EDWIN D. MCKEE, Study of sedimentary structures
 DARYL B. SIMONS, Interpretations of sedimentary structures by flume experiments
 CHARLES D. MASTERS, Stratigraphic analysis through determination of depositional environments
 M. DANE PICARD, Paleocurrents and shoreline orientations in Green River Formation (Eocene), Raven Ridge and Red Wash areas, northeastern Uinta basin, Utah
 PERRY O. ROEHL, Analogs of Recent low-energy carbonate deposits in Stony Mountain (Ordovician) and Interlake (Silurian) Formations, Montana
 DONALD W. LANE, Primary structures and sedimentary environments in Dakota Sandstone, northwestern Colorado

WEDNESDAY AFTERNOON, OCTOBER 26

Recent Field Developments

Presiding: SHERMAN A. WENGERD, JOHN C. OSMOND

R. E. SWENSON, Trap mechanics in Nisku in northeastern Montana
 GRAHAM S. CAMPBELL, Douglas Creek trend, case history, Uinta basin, Utah
 A. V. ROBERTSON COE, Pitchfork oil field, Park County, Wyoming
 JERRY L. BRANCH, General drilling history and new developments in northwestern Montana
 KENNETH E. CARTER, Cache field, Montezuma County, Colorado

* Gamma-Ray Attenuation Porosity Evaluator.

D. KEITH MURRAY, LOUIS C. BORTZ, Eagle Springs field, Nevada

ABSTRACTS OF PAPERS

(In sequence as presented in technical program)

1. JOHN J. SULLIVAN, Independent geologist, Casper, Wyoming

EXPLORATION FOR OIL AND GAS IN WYOMING

During 1965, Wyoming retained first position as the most active state in the Rocky Mountains despite 119 fewer wells than in 1964. A total of 312 exploratory tests was drilled during the year, a 13% decrease from 1964, and a 23½% decline since 1963. The Wyoming success ratio was 10.26%, down 1% from 1964, but considerably better than the overall Rocky Mountain ratio of 7.1%, the lowest in recent history. A total of 636 development wells was drilled with 423 completions for a 66.5% success ratio. This is an increase of 1.2% from 1964 when 94 more wells were drilled.

Although overall activity in Wyoming decreased in 1965, it is apparent that it was an outstanding year. It is estimated that approximately 285 million bbls. of new oil were found with a gain in oil reserves of more than 150 million bbls. This oil was found at a cost of \$0.74/bbl, the cheapest in the Rockies. Wyoming production increased by 5.6 million bbls. and the state led the region with 143.7 million bbls. produced for a daily average of 373,823 barrels. This was approximately 70% of the total oil produced in the northern states.

The year 1965 will be remembered as a turning point in the pattern of exploratory thinking in Wyoming. Despite the fact that exploratory drilling declined and fewer discoveries were made, more reserves were found than in any other year during the past two decades. The discovery of prolific deep production stimulated renewed interest in deep prospects previously condemned by depth. A more critical analysis of geologic data was evidenced by the improved caliber of wildcat prospects which found more oil for less overall expenditure. Geophysical activity increased by nearly 30% from 1964, and lease acreage increased nearly 3% for the first gain in 5 years. Considering all phases of exploration, Wyoming remained the most prospective state in the Rockies during 1965 and holds greater promise for 1966.

2. PAUL W. BURCHELL, Utah Oil and Gas Conservation Commission, Salt Lake City, AND JOHN C. OSMOND, Independent geologist, Salt Lake City

REVIEW OF OIL AND GAS DEVELOPMENTS IN UTAH AND NEVADA, 1965-1966

The most significant development in Utah was the January 1, 1966, completion of the Phillips Petroleum Company's "A"-1 Bridger Lake Fork well in Summit County. The well was tested for 2,753 b/d of 40.3° API gravity oil.

Drilling activity for 1965 in Utah decreased from 1964. There were 37 fewer wells and 233,422 less feet drilled. It is estimated that the number of wells to be drilled in 1966 will be fewer than those completed in 1965. However, the total footage will be about the same.