

advantages in that very little preliminary geological work is required; because geophysics are of no aid in this problem they do not have to be considered; drilling depths can be chosen to suit the operator's equipment and finances; and finally, considerable latitude is offered in choosing a well site. Since there is no relationship between depth to the sand (if present) and production, the cost of exploring a sand lens area with wells 2,000 feet in depth (or less) would be commensurate to a core drill program of similar depth.

To support the contention that accumulation of the type discussed is more dependent on reservoir media than on structural considerations the following producing areas are cited.

1. Shannon pool off north plunge of Salt Creek, and Bothwell syncline west of Salt Creek field
2. Dakota production in Big Muddy field
3. Dakota production in East Lance Creek field
4. Dakota production in North Ant Hills area
5. Newcastle sand, Dakota and Lakota production in Mule Creek field
6. Dakota production in Bridge Creek area
7. Muddy or Newcastle sand production in Mush Creek-Newcastle-Osage fields
8. Dakota production in Lodgepole area
9. Frontier production in Upton-Thornton area
10. Newcastle sand production in Moorecroft area

All of the examples are in the Powder River basin of Wyoming.

In conclusion it should be mentioned that there are many other areas in the Rocky Mountain region where production of the type discussed can be obtained. It can be further stated that in any one of the Rocky Mountain basins where Cretaceous rocks are present the possibilities for sand trap accumulation exist.

13. Recent Developments in Canada, L. M. Clark, Barnsdall Oil Company, Calgary, Canada.

Recent oil developments in Canada have been largely restricted to Alberta. Some exploratory work, including drilling, has been carried on in northeastern British Columbia, Saskatchewan, Manitoba, Ontario, and the Maritime provinces. Geophysical exploration in Alberta has reached an all time high with forty seismographs, nine gravity meters, one magnetometer and a number of core drills and stratigraphic drills operating. This work has been largely concentrated in the Central Plains, although the Southern Plains and foothills are receiving considerable attention. Recent important discoveries, in addition to the Leduc oil field which produces oil from two dolomite zones in the Upper Devonian as well as from a Lower Cretaceous sand, include the Gulf Pincher Creek Mississippian limestone gas and condensate discovery in the southern foothills, and Imperial's Redwater No. 1 well which appears to have found another Devonian oil field thirty miles northeast of Edmonton. Other recent finds include a small Lower Cretaceous sand discovery at Bantry jointly by California Standard and Imperial, several pool extensions in the Lloydminster oil field, a gas discovery in the Cretaceous Peace River sand of the Peace River district of northeastern British Columbia and northwestern Alberta by Pacific Petroleum Limited, and a small heavy oil discovery by Bata Petroleum near the Alberta-Saskatchewan boundary eighty miles south of Lloydminster in a Lower Cretaceous sand.

One hundred and thirty wells were drilled in Alberta during the first six months of 1948. Using the A.A.P.G. classification, there were 110 completions, 74 of which were field development and 36 exploratory wells. Five field development wells were dry holes. Considering the exploratory wells, 5 outpost wells were successful and 5 were dry holes. Among the new field wildcats, Imperial's Woodbend No. 1, north of Leduc, discovered what is probably a new pool. Of the approximately 165,000,000 acres comprising the Province of Alberta, approximately 41,000,000 acres are currently held under lease or reservation.

14. History of Continental Shelf of Gulf of Mexico, Paul Weaver, national president, A.A.P.G., Houston, Texas.

Some authors consider the shore line as a hinge line with the land surface uplifted and the shelf downwarped. The author shows that this is by no means the general case and especially describes the geology of the shelf in the Gulf of Mexico.

15. Jasmine Oil Field, Robert W. Casey, Pacific Oil and Gas Development Corporation, San Francisco, Calif., and Fred Sperber, consultant, Bakersfield, Calif.

This field was discovered by Pacific Oil and Gas Development Corporation, July 25, 1946, upon completion of Cantleberry No. 72-5 pumping 84 B/D of 13.5° gravity oil from the interval 2,763-2,794 feet in the lower Vedder zone. At present there are seven producing wells in the field.