New Oil Pools in Bystrin Field of West Siberia


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The Bystrin field was discovered in 1964 to the northwest of Surgut in the Tyumen Region of West Siberia. On reflecting horizon B (top of Bazhenov Fm) it is a north-south trending brachy-anticline, which closes on the ~2570 structure contour. See Fig. 1.

Step-out drilling determined the presence of commercial pools in horizons AS$_7$, AS$_8$, AS$_9$, BS$_1$, and BS$_2$ of the Hauteriv-Barremian. Well 3 was deepened to the pre-Jurassic basement. It passed through oil-saturated rocks in the Tyumen Formation of the Middle Jurassic and the Achimov Member of the lower Neocomian. The commercial quality of these was unclear, however.

Production of horizons BS$_1$ and BS$_2$ began in 1974 along with study of the deeper horizons, where new oil pools were then discovered.

The Tyumen Formation contains horizon YuS$_2$, which is composed of alternating beds of sandstone, siltstone, and argillite of continental origin. The sandstones are not persistent. Of eleven wells, four yielded oil, three gave water, one was dry, and the rest have not been tested.

The Achimov Member has been penetrated by 25 wells. Eleven yielded oil, one - water, and the rest are being tested. The lensing character of the section makes correlation difficult. See Fig. 2.

In test production during 1979-80 yield ranged from 2.04 to 25.94 tons per day.