

## THE DISCOVERY

Then it happened. On February 23rd, 1953, Pembina No. 1 was spudded. At this time, little was known about the sandstone that the drillers would have to contend with. The first prospective zone was the Cardium. The top of the oil was speculated at about 5,330 feet. A drill stem test was carried out—if the oil was highly pressurized, as it was in the Devonian reef, oil would rush to the surface at a rate of several thousand barrels a day.



When they drilled, nothing flowed to the surface. Was this well just a teaser? Socony-Mobil was in a quandary—should they pull out or continue to the well's contracted depth of 9,400 feet?

They decided to continue on. At one point in the drilling, a one-foot wrench had been dropped into the hole and had to be retrieved with a powerful fishing magnet. In May, the total depth of the well reached 9,425 feet, with no sign of oil—the well was definitely a teaser.



But this time, they decided to try a relatively new technique called sand fracturing or hydrofracing. A solution of diesel oil and 3,000 pounds of sand were pumped down at a pressure of 1,800 pounds per square inch. The anticipated result was that hairline fractures would appear in the rock formation. The grains of sand would keep these fractures open and, hopefully, allow the oil to flow through—if there, indeed, was any.

At the time, the technique had never been successfully applied in Canada. The odds were not considered favourable. However, on June 10th, after completion of the procedure, the well began to produce, initially at 72 barrels per day before maxing out at 285 barrels per day. Socony Seaboard No. 1 was the first Cardium well in Alberta and the first well drilled in the Pembina Oil Field. Its impact on Drayton Valley was immediately evident.