1953: Geologist J.W. Nordquist first describes the Bakken Formation in North Dakota’s Nesson Anticline (Beaver Lodge Field).

1955: Oil is first produced in the Bakken Formation.

1961: Elkhorn Ranch Field discovery in the Billings Nose area by Shell Oil with the Government 4IX-5-1 well in Billings County. The discovery provides that significant reserves could be found in the Upper Bakken Shale.

1976: Beginning of vertical well development in the Upper Bakken Shale of the Elkhorn Ranch Field known as the “Bakken Fairway” area. Wells are fracture-stimulated with sand and oil.

1989: Horizontal well technology becomes more widely adopted following successes in Prudhoe Bay and the Austin Chalk.

1995: Elm Coulee Field of Richland County, Montana, is discovered at Kelly/Prospecter Albion FLB 2-33 well. Concept for the “sleeping giant” is developed by independent Dick Findley, which includes horizontal drilling of the Middle Bakken Member porosity trend.

2005: EOG Resources demonstrates with the Nelson Farms 1-24H well in the Ross Field that horizontal drilling combined with hydraulic fracturing can recover significant oil from Mountrail County, North Dakota. The potential of the area is recognized by Michael Johnson to be similar to Elm Coulee Field.

2011: Baker Hughes announces successful 40-stage deployment of FracPoint™ EX-C in the Whiting Petroleum Smith 14.29XH horizontal well, which marks the use of the largest number of stages completed in a fracturing sleeve/packer completion system. The advent of fracturing sleeve systems greatly enhances the time and cost efficiency of well completions.

Early 1990s: Hydraulic fracturing technology in horizontal wells steadily improves.

Late 1990s: Mass application of very large multistage hydraulic fracturing gains favor with the success in the Barnett Shale.

2006: EOG Resources drills Parshall 1-36 and Parshall 2-36 wells, capitalizing on multistage fracturing of horizontal wells with initial production rates of over 500 bpd per well.

2009: Average rig count 53; average production 218,456 bpd

2008: Average rig count 75; average production 171,989 bpd

2007: Average rig count 43; average production 123,622 bpd

2005: Average rig count 25; average production 97,729 bpd

2000: Average rig count 13; average production 89,388 bpd

2000: Average rig count 53; average production 218,456 bpd

2005: Average rig count 126; average production 309,679 bpd

2010: Average rig count 126; average production 309,679 bpd


1996: Elkhorn Ranch Field is discovered by Standard Oil and Gas #1 Woodrow Starr well. Field development of vertical wells continues into the 1960s from the Bakken and Sanish (Upper Three Forks) Formations in Northeastern McKenzie County. Antelope Field has produced 11 MMbbl of oil and 20 Bcf of gas from 44 wells capable of producing approximately 200 bpd on average. Production is largely dependent on natural fractures of the steeply dipping portion of the Antelope Anticline.

1961: Antelope Field is discovered by Standard Oil and Gas #1 Woodrow Starr well. Field development of vertical wells continues into the 1960s from the Bakken and Sanish (Upper Three Forks) Formations in Northeastern McKenzie County. Antelope Field has produced 11 MMbbl of oil and 20 Bcf of gas from 44 wells capable of producing approximately 200 bpd on average. Production is largely dependent on natural fractures of the steeply dipping portion of the Antelope Anticline.

1953: Antelope Field is discovered by Standard Oil and Gas #1 Woodrow Starr well. Field development of vertical wells continues into the 1960s from the Bakken and Sanish (Upper Three Forks) Formations in Northeastern McKenzie County. Antelope Field has produced 11 MMbbl of oil and 20 Bcf of gas from 44 wells capable of producing approximately 200 bpd on average. Production is largely dependent on natural fractures of the steeply dipping portion of the Antelope Anticline.