Permian Basin Drilling and Production Update

Dawn Iglesias, Chief Economist, LFC; Ismael Torres, Economist, LFC

Permian Basin

- The oil price crash that began in March 2020 caused rapid decline in drilling rigs in Texas and New Mexico.
  - New Mexico’s drilling rigs declined 59 percent from their peak of 117 rigs in March 2020, falling to 48 rigs by the first week of July. Drilling rigs have since remained between 40 and 50 rigs through the first week of November.
  - Texas’ active drilling rigs declined 74 percent thru July and remained down 67 percent as of end of October.
  - Rig counts are expected to remain low as long as prices remain below $45 per barrel.

- Drilling in the Permian basin was down 74 percent in September 2020, with 134 new wells drilled that month, compared to 589 new wells in September of last year.
  - Comparably, drilling in the Eagle Ford basin was down 91 percent, Bakken drilling was down 84 percent, and Anadarko drilling was down 88 percent.

- Low prices forced many producers to shut-in wells in April and May; however, price recovery to the mid-$30s in June led many operators to return curtailed volumes in June, and most curtailments appear to have been reinstated by August. This caused production to increase in the summer months.
  - However, Permian drilling activity is down 74 percent. Even with a significant supply of drilled but uncompleted wells set to come online next year, the analytics firm Rystad Energy expects shale oil output to show decline in Q4-2020 and continue declining into 2021.

- Rystad Energy projects U.S. tight oil production will recover to pre-Covid record by 2023, with nearly all growth coming from the Permian Basin. Due to comparatively lower drilling and completion costs, Rystad views the Permian as the only major region that will be able to surpass its pre-Covid production record.
  - Rystad reports the Delaware portion of the Permian – located largely in Southeast New Mexico – remains “the most resilient play” during the ongoing downturn.
New Mexico Production and Prices

- Oil production in New Mexico fell to 835 thousand barrels per day (bpd), a decline of 26 percent, from March to May, based on data from the Taxation and Revenue Department. Natural gas production declined 7 percent to 4.8 billion cubic feet per day in May.
  - With many of the shut-in wells reinstated, oil production increased to 1 million bpd by August but remain 10 percent below the peak of 1.1 million bpd reached in March. Natural gas production was 5.4 billion cubic feet per day in August, up from the previous peak of 5.3 billion cubic feet per day reached in January.
- New Mexico’s average oil price fell to $14.38/bbl in April, recovering to $40.04/bbl in August. However, preliminary industry data suggests New Mexico’s oil prices dropped to $37/bbl in September and October.
- New Mexico’s average natural gas price was $1.04/mcf in April and rose to $2.24/mcf in August.
  - Natural gas transportation and processing deductions jumped to 60 percent in April, compared to a historical average of about 30 percent. The resulting net natural gas price, which best represents the price received by producers and the taxable value of the product, averaged just 38 cents in April. By August, deductions declined to 40 percent, resulting in a statewide average net natural gas price of $1.34/mcf.
- Oil price forecasts are currently tracking at about $39/bbl for FY21. However, uncertainty in the oil market remains, particularly regarding potential extension of the OPEC+ production cuts and potential fuel demand amid rising coronavirus cases in the U.S.
- The September 2020 consensus revenue estimate projected a 13 percent to 30 percent decline in oil production in FY21, and a 7 percent to 10 percent decline in natural gas production.
  - Should oil prices increase faster-than-expected, companies may use higher oil prices to return more to investors or pay down debt rather than expand investment in new drilling.
- New Mexico’s mining sector lost 6.4 thousand jobs from February 2020 to May 2020, a decline of 24 percent in just three months, according to data from the Bureau of Labor Statistics. The mining sector lost another 1,000 jobs from May 2020 to September 2020.
  - In the 2015-2016 downturn, it took about a year for the state to lose the same amount of mining jobs lost the first three months of this current downturn. Employment declines continued from December 2014 to August 2016, with peak-to-trough of mining employment falling 34 percent (or nearly 10 thousand jobs), and job levels never returned to previous peaks.