



Independent Statistics & Analysis

U.S. Energy Information
Administration

EIA Estimates of Drilled but Uncompleted Wells (DUCs)

September 19, 2019



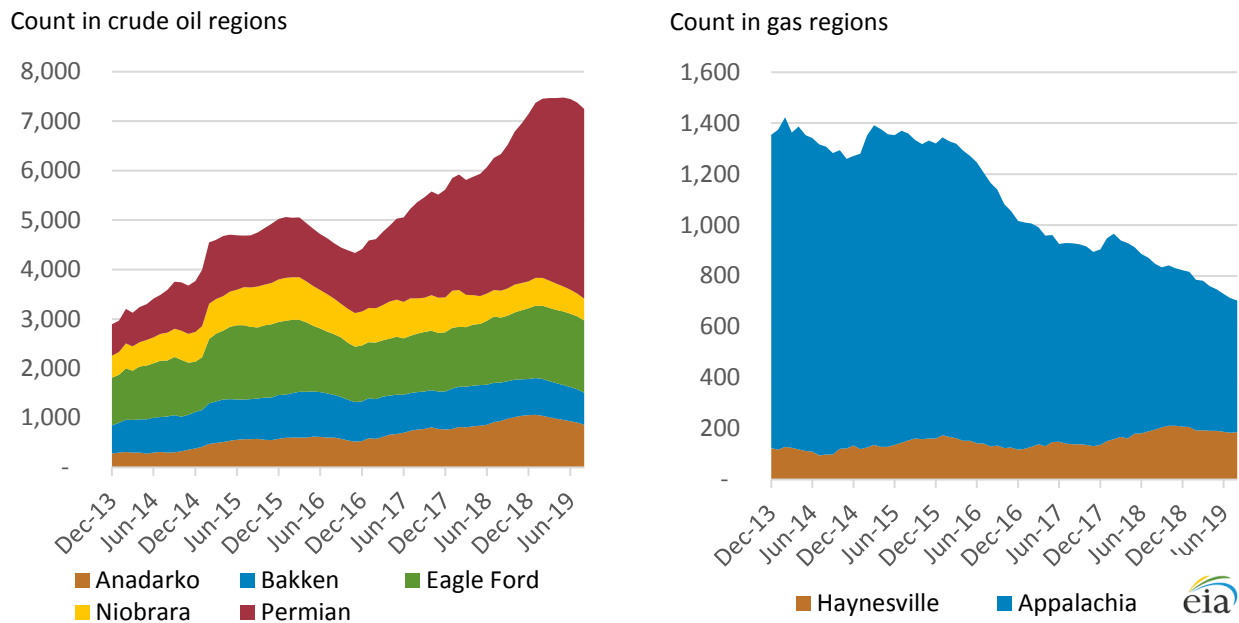
This report was prepared by the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the United States Government. The views in this report therefore should not be construed as representing those of the U.S. Department of Energy or other federal agencies.

A Drilling Productivity Report Supplement

In its September 2016 monthly *Drilling Productivity Report* (DPR), the U.S. Energy Information Administration (EIA) introduced a supplement that provides monthly estimates of the number of drilled but uncompleted wells (DUCs) in the seven DPR regions.

Updated EIA estimates show DUC counts as of the end of August 2019 total 7,247 in the five oil-dominant regions and 703 in the two gas-dominant regions that together account for nearly all U.S. tight oil and shale gas production. In the oil regions, the estimated DUC count increased during 2017–19, but it peaked in May 2019. The DUC count in the gas regions has generally declined since December 2013.

Figure 1. DUCs in crude oil and natural gas regions

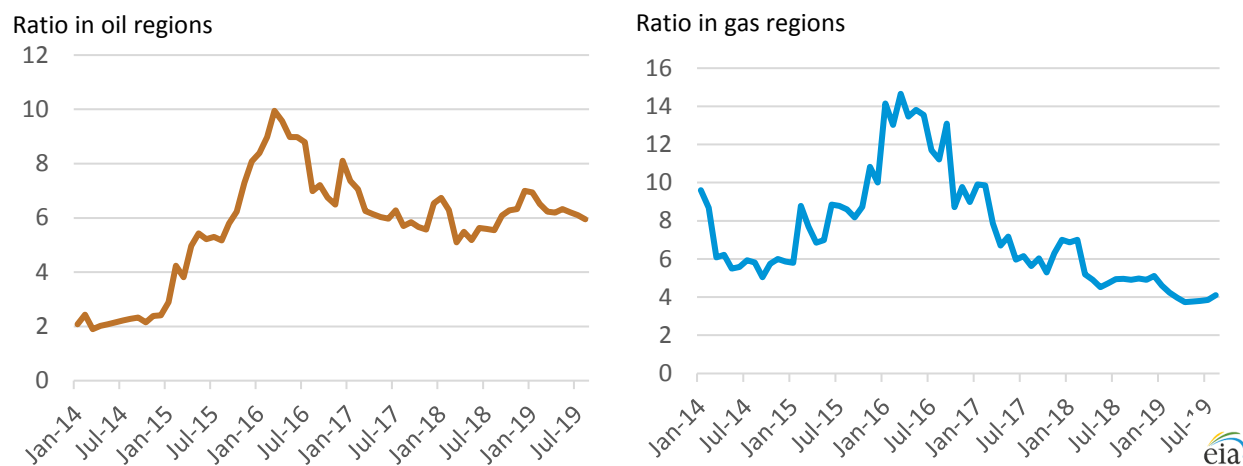


Source: U.S. Energy Information Administration

A high inventory of DUCs may affect the size and timing of the domestic supply response to a persistent or significant rise in oil prices with or without significant changes in the number of active drilling rigs.

Before the decline in drilling activity and increases in the estimated number of DUCs in oil-dominant plays at the end of 2014, the ratio of DUCs to completions (D/C ratio) was about 2:1 for oil regions and slightly over 4:1 for gas regions. Both ratios increased in 2015 and peaked in 2016. Although the gas-region ratio returned to the 2014 level of 4:1, the oil-region ratio settled at a new level of 6:1.

Figure 2. DUC to completion ratios



Source: U.S. Energy Information Administration

Reports and estimates

A tab with a summary on DUCs by DPR region is available on the [main DPR website](#).

New-well production per rig by region		Production by region		DUC wells by region	
Drilled but uncompleted wells (DUC) wells					
Region	July 2019	August 2019	change		
Anadarko	906	860	(46)		
Appalachia	529	517	(12)		
Bakken	674	652	(22)		
Eagle Ford	1,474	1,458	(16)		
Haynesville	184	186	2		
Niobrara	461	438	(23)		
Permian	3,864	3,839	(25)		
Total	8,092	7,950	(142)		

The DPR webpage now also includes a link to an Excel file with monthly DUC estimates from December 2013 to the present for each DPR region.

Enhanced data sources and methodology for EIA DUCs estimates

The DPR uses drilling and production activity data from regulatory agencies and private-sector vendors to estimate the DUC counts in the seven regions. With improved data availability and consistency, DPR aims to provide timely estimates, update the estimate when lagged data become available, and settle the estimates when all reported data are available.

EIA assesses the number of wells drilled monthly in each DPR region using

- Enverus, formerly known as DrillingInfo, GPS data to observe end-of-drilling activities indicated by rigs leaving well sites
- Active Baker Hughes rig counts in the region
- Historical correlations between rig counts and number of new wells drilled in the region per month
- Historical correlations between the number of wells drilled and the number of new successful producing wells in the region per month
- Files released by the states regarding drilling activities of individual wells

EIA assesses monthly completion activity by using

- The FracFocus.org database to observe end-of-completion activities indicated by producers' filing fracking reports
- Files released by the states regarding completion activities of individual wells

With the combination of continuous enhancement of data sources and model methodologies, the DPR strives to provide high-quality forecasts and actual historical settlement of DUC counts.