

Market Update

PRODUCTS	4/22/19	4/23/19	4/24/19	4/25/19	4/26/19
WTI Crude Oil	65.66	66.30	65.89	65.21	63.30
Brent Crude Oil	74.04	74.51	74.57	74.35	72.15
Natural Gas	2.52	2.45	2.46	2.51	2.57

[CME Group](#)

Headlines

North Dakota

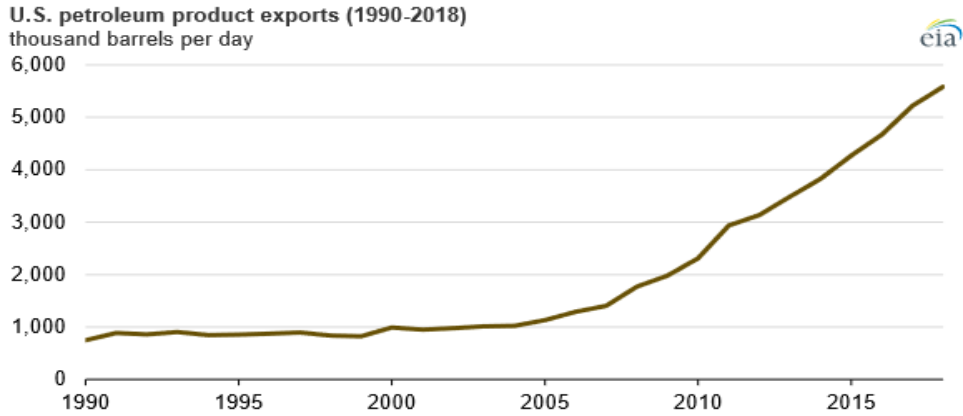
- **Montana, North Dakota could have much more recoverable oil than once thought, officials say amid study.**

[Associated Press](#)

- A federal estimate of recoverable oil in North Dakota and the surrounding area needs to factor in more geologic formations and rapidly advancing technology, state and energy industry officials said Wednesday. The U.S. Geological Survey has begun updating its estimate of recoverable oil and gas resources in the Williston Basin in North Dakota, eastern Montana and northwestern South Dakota. It expects to wrap up the effort by the end of the year, Energy Resource Program Coordinator Walter Guidroz said during a meeting with the officials to map out the best strategy for compiling the new estimate. The USGS in 2013 estimated 7.4 billion barrels of oil could be recovered from the basin's Bakken and underlying Three Forks shale formations, which encompass about 25,000 square miles within the Williston Basin. However, there are 17 other, smaller geologic formations that also show "significant" potential with new drilling and hydraulic fracturing technology, according to state Mineral Resources Director Lynn Helms. Five have already been studied by state officials. "They've identified maybe a billion barrels of oil potential," Helms said. North Dakota is already the nation's second-leading producer of crude behind Texas, accounting for about 12 percent of U.S. production. The state saw record production in January of 1.4 million barrels daily. Almost all of that came from the Bakken and Three Forks, where technology advancements are enabling companies to extract more oil "than we ever thought possible," Continental Resources Geologic Manager Tony Moss said. "We've completely replaced our top 10 (producing) wells within about the last year and a half," he said. "We're really just getting to the point where we feel like we're really starting to optimize development." Continental estimates as much as 40 billion barrels of recoverable oil from the Bakken and Three Forks alone. Sen. John Hoeven and industry officials asked the USGS in September 2017 for a new federal assessment, saying it could show stronger production potential. "We have to continue to attract capital and investment not only to produce the resource but to get all the infrastructure we need to do it right," Hoeven said Wednesday, detailing a laundry list of needs including pipelines, processing plants, roads, bridges, houses, stores and bigger airports. The USGS in December 2017 committed to a study, which Guidroz said is now in the initial stages. There is no set budget for the study, he said.

Domestic

- U.S. petroleum product exports set record high in 2018. [EIA](#)



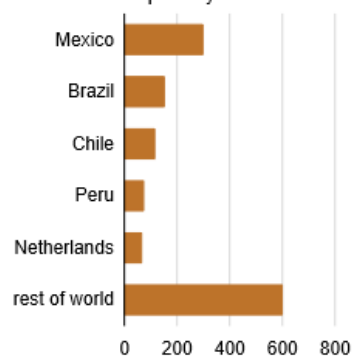
- U.S. exports of total petroleum products set a record high in 2018, reaching an annual average of 5.6 million barrels per day (b/d), an increase of 366,000 b/d from 2017 levels. The three largest petroleum product exports from the United States in 2018 were distillate, propane, and motor gasoline. U.S. exports of motor gasoline (including blending components) and propane reached record highs in 2018, and exports of distillate reached their second-highest volume on record, following the high set in 2017.
- Total U.S. petroleum product exports set a record high in 2018 for the 16th consecutive year. From 2009 to 2013, distillate exports contributed the most to annual growth. However, from 2014 to 2018, exports of hydrocarbon gas liquids, which include propane, drove U.S. petroleum product export growth.
- As U.S. crude oil production increased over the past decade, gross inputs into refineries also increased. Petroleum products can be used domestically, exported, or put into inventory. In 2018, record-high levels of U.S. crude oil production and refinery runs helped refiners export large volumes of petroleum products, even with high levels of domestic demand.

Monthly U.S. distillate exports and destinations

U.S. distillate exports
thousand barrels per day



Export destinations (2018)
thousand barrels per day

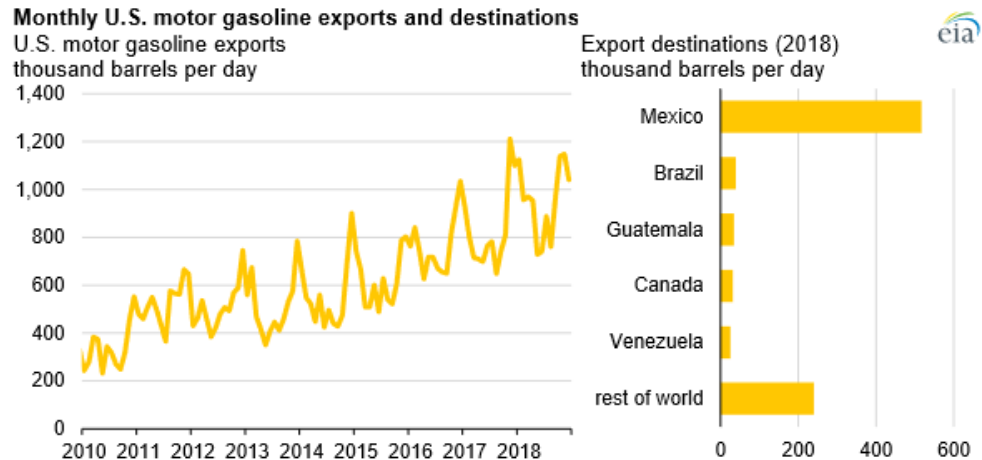


- Despite an 80,000 b/d decrease in exports in 2018 from 2017, distillate remained the most exported petroleum product in 2018, averaging 1.3 million b/d, or approximately 25% of U.S. refinery net production. Distillate exports were still more than 100,000 b/d higher than the previous five-year average (2013–2017). The United States exported distillate to 64 destinations in 2018, with the largest volumes destined for Mexico.

- Mexico received an average of 298,000 b/d, or 23% of U.S. distillate exports, increasing 42,000 b/d from 2017. Mexico's increasing exports were likely driven by the country's refineries that continued to operate below capacity in 2018, as reported by trade press. Brazil received the second-largest share of distillate exported from the United States, averaging 151,000 b/d (12% of U.S. distillate exports), down by 57,000 b/d from 2017. Chile, Peru, and the Netherlands comprise the remainder of the top five recipients of U.S. distillate exports.



- U.S. propane exports reached a record high of 972,000 b/d in 2018, surpassing the previous record of 914,000 b/d set in 2017. Propane exports in 2018 were greater than motor gasoline exports for the third consecutive year, and propane remained the second-largest U.S. petroleum product export. Unlike other U.S. petroleum product exports, which tend to stay in the Western Hemisphere, significant volumes of U.S. propane often reach Asian markets. Three of the top five destinations are in Asia. Propane is used in many Asian countries as a feedstock for producing ethylene and propylene, which are building blocks for chemical and plastic manufacturing.
- Japan received the largest share of U.S. propane exports, more than 258,000 b/d (or 7%) of total U.S. propane exports, an increase of 48,000 b/d from 2017 volumes. Exports to Korea and the Netherlands increased by 25,000 b/d and 21,000 b/d, respectively. However, exports to China fell by 62,000 b/d, a 49% year-over-year decline. Mexico received the second-largest share of U.S. propane exports in 2018 at an average of 131,000 b/d, which was down 7,000 b/d from 2017 levels.



- U.S. exports of motor gasoline (including blending components) reached 44 destinations in 2018 and set a record high of 951,000 b/d, up 126,000 b/d from 2017 levels. This increase in exports came despite high levels of domestic gasoline consumption, averaging 9.3 million b/d in 2018, only slightly lower than the record-high level set in 2017.
- U.S. refiner and blender net production of finished motor gasoline increased more than 100,000 b/d to 10.1 million b/d in 2018, a record high, and helped contribute to the simultaneous high levels of domestic consumption and export volumes. The five largest shares of U.S. gasoline exports were all in the Americas. In 2018, Mexico received 529,000 b/d of U.S. gasoline exports, or 56% of total U.S. gasoline exports, which was 60,000 b/d more than in 2017. Exports to Canada increased by 25,000 b/d, to average 62,000 b/d, or 6% of U.S. gasoline exports in 2018.

Oil and Gas Analysis

o Rotary Rig Count Summary

Location	Date	Week	+/-	Week Ago	+/-	Year Ago
United States	18-Apr-19	1012	-10	1022	-1	1013
	26-Apr-19	991	-21	1012	-30	1021
North Dakota	18-Apr-19	61	0	61	9	52
	26-Apr-19	58	-3	61	3	55
Canada	18-Apr-19	66	0	66	-27	93
	26-Apr-19	63	-3	66	-22	85
International	Mar-19	1039	12	1027	67	972

- Baker Hughes

o Weekly Petroleum Status Report

Stocks (Million Barrels)			
	Four Weeks Ending		
	4/19/2019	4/12/2019	4/20/2018
Crude Oil (Excluding SPR)	460.6	455.2	429.7
Motor Gasoline	225.8	228.0	236.8
Distillate Fuel Oil	127.0	127.7	122.7
All Other Oils	431.1	425.0	393.1
Crude Oil in SPR	649.1	649.1	664.7
Total	1,893.7	1,884.9	1,847.1

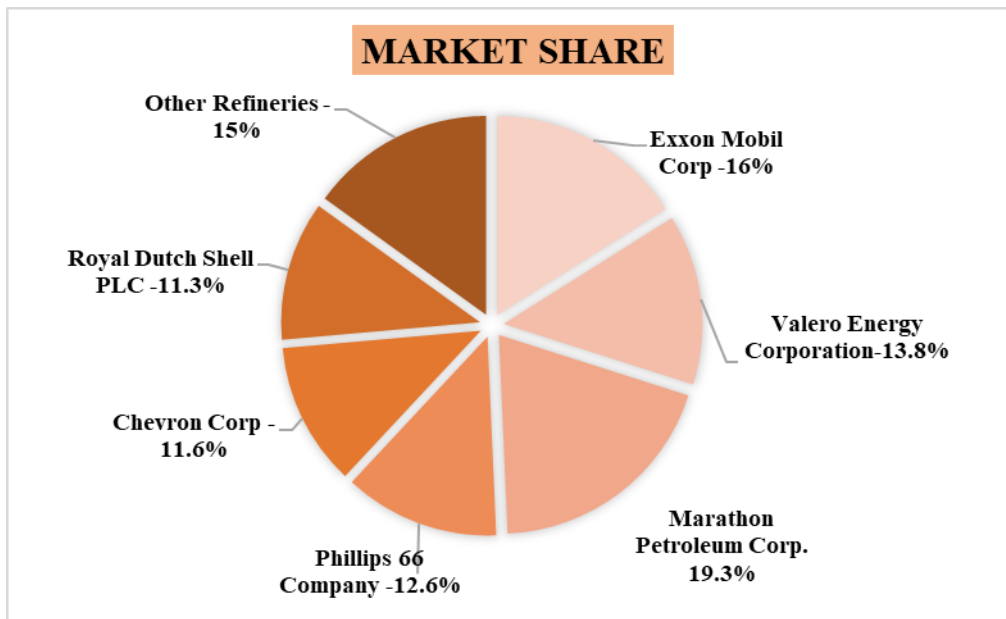
Products Supplied (Thousand Barrels per Day)			
	Four Weeks Ending		
	4/19/2019	4/12/2019	4/20/2018
Motor Gasoline	9,442	9,370	9,354
Distillate Fuel Oil	3,771	3,876	4,041
All Other Products	6,952	6,838	6,971
Total	20,164	20,084	20,366

Refinery Activity (Thousand Barrels per Day)			
	Four Weeks Ending		
	4/19/2019	4/12/2019	4/20/2018
Crude Oil Input to Refineries	16,153	15,965	16,881
Refinery Capacity Utilization	87.9	87.7	92.4
Motor Gasoline Production	9,920	9,889	10,089
Distillate Fuel Oil Production	4,949	4,914	5,086

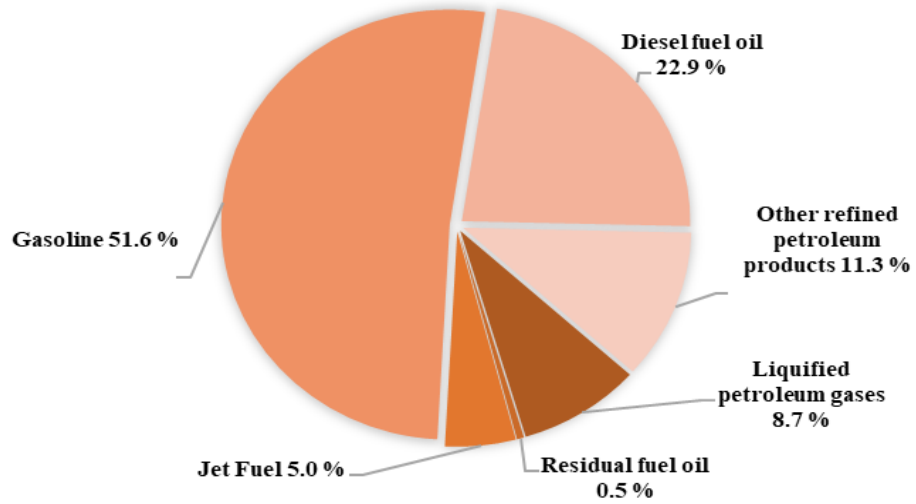
Net Imports (Thousand Barrels per Day)			
	Four Weeks Ending		
	4/19/2019	4/12/2019	4/20/2018
Crude Oil	4,087	3,884	6,372
Petroleum Products	-2,806	-2,876	-3,061
Total	1,282	1,008	3,311

- [EIA](#)

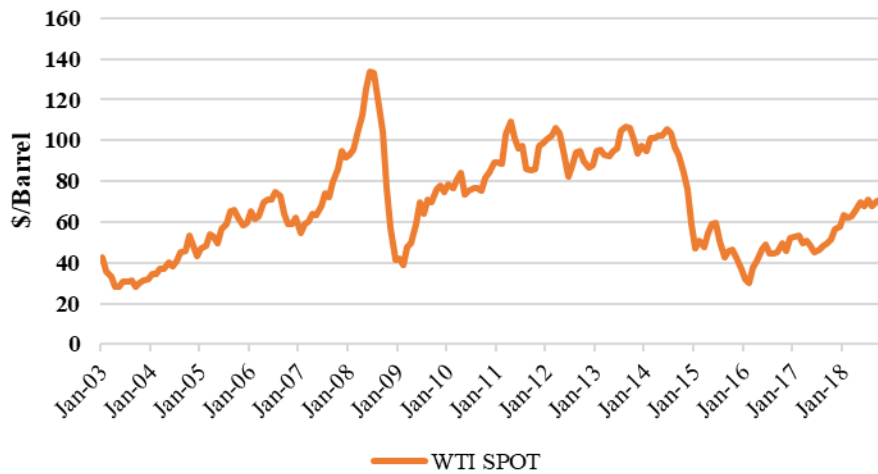
- **US Petroleum Refining at a Glance**



PRODUCTS AND SERVICES SEGMENTATION



WTI Monthly Spot Pricing



- [EIA](#)