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June 2022

EXECUTIVE SUMMARY

- U.S. petroleum demand exceeded 20 million barrels per day (mb/d) in June, with monthly increases across transportation fuels despite historically high prices.
- U.S. refining activities (gross inputs 16.9 mb/d; 94.0% capacity utilization rate) increased in June to their highest levels since 2019.
- Domestic crude oil and natural gas liquids production rose for the month.
- The U.S. remained a petroleum net exporter of 0.8 mb/d in June as gross exports remained near their highest levels on record since 1947, and imports were little changed in June.

Demand data are a natural focal point amid the summer driving season and showed continued but slower monthly growth in June, which likely reflected increased fuel prices and diminished economic growth. However, even lowered economic growth expectations have remained for rates that have been above the 20-year average, supporting demand over 20 million barrels per day in the first half of the year for only the seventh time in U.S. history.

Meanwhile, domestic supply stepped up again in June with strong refining and upstream production activities that resulted in increased total inventories for only the second month so far this year.

Leading economic indicators weakened. API's Distillate Economic Indicator™ suggested slowed growth of U.S. industrial production and broader economic activity (please see the following [chart](#) for details).

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 - Highest jet fuel demand since January 2020.
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 - Other oils' demand 2nd highest for June since 2006.

Prices & Macroeconomy

- **Domestic crude oil prices nearly \$8 per barrel under international levels.**
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Supply

- **2nd straight monthly increase in U.S. crude oil production.**

International trade

- **Highest U.S. petroleum exports for June since 1947.**

Industry operations

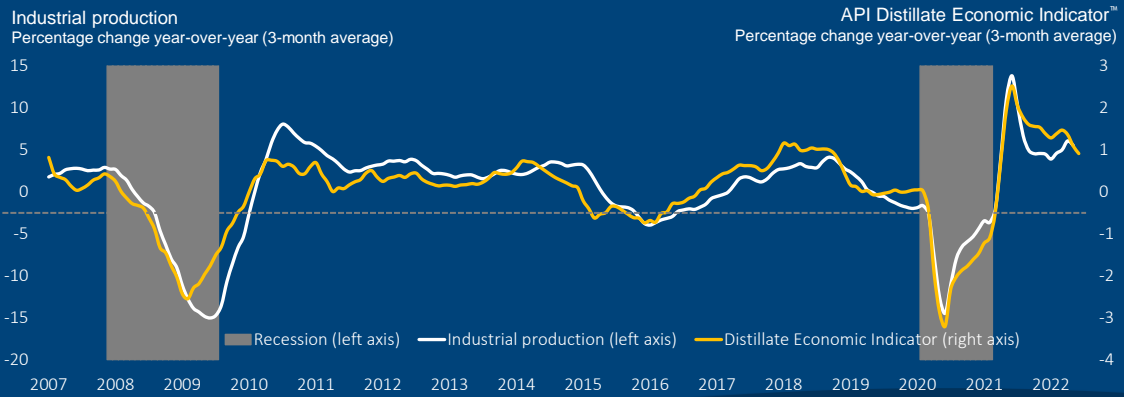
- **U.S. refining gross inputs and capacity utilization rates at their highest since 2019.**

Inventories

- **The continuation of the lowest monthly crude and total petroleum inventories since 2014.**

API's Distillate Economic Indicator™ - June 2022

▶ The Distillate Economic Indicator™ value of +0.9 for June 2022 and three-month average of +0.9 showed continued but slower growth of U.S. industrial production and broader economic activity



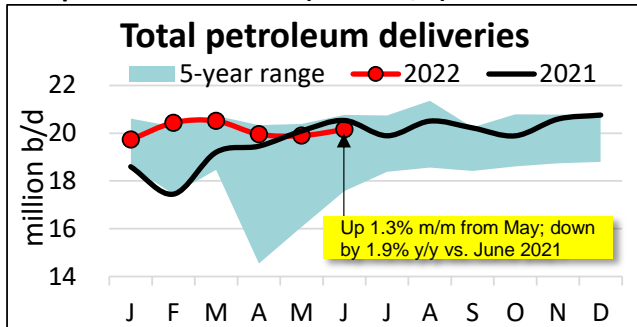
sources: API Monthly Statistical Report; EIA; CME Group; Moody's, Federal Reserve Board; API Team calculations



Details by section

Demand

U.S. petroleum demand (20.2 mb/d) rose in June



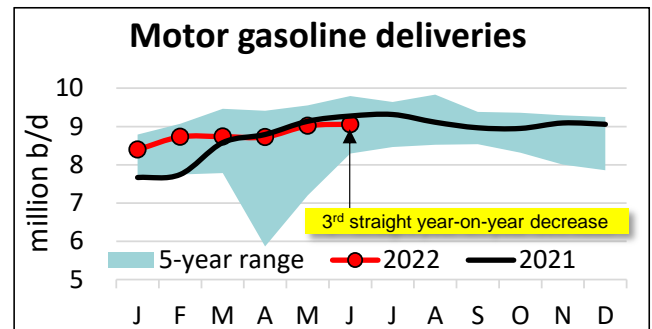
U.S. petroleum demand, as measured by total domestic petroleum deliveries, was 20.2 mb/d in June. This reflected an increase of 1.3% seasonally from May, which was less than half of the average seasonal increase of 2.7% per year between May and June between 2012 and 2021. The 20.2 mb/d in June also reflected a decrease of 1.9% y/y compared with June 2021, the largest percentage gap so far this year below 2021 monthly levels.

Gasoline

Motor gasoline demand (9.1 mb/d) continued to grow with the summer driving season

Consumer gasoline demand, measured by motor gasoline deliveries, was 9.1 mb/d in June. With the summer driving season, this reflected an increase of

0.4% from May, but lagged the average 2.9% seasonal increase seen between May and June in 2012-2021. The 9.1 mb/d of demand was also down 2.3% y/y compared with June 2021 – a third straight month in which gasoline trailed its year-ago levels and coincided with historically high monthly U.S. nominal gasoline prices.

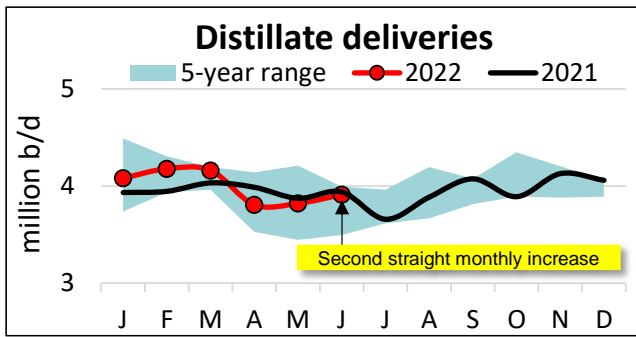


Deliveries of reformulated-type gasoline (consumed primarily in urban areas) fell by 2.5% y/y to 3.0 mb/d, while those of conventional gasoline (consumed mainly in rural areas) decreased by 2.3% y/y to 6.1 mb/d.

Distillate Fuel Oil

Distillate demand rose along with freight trucking

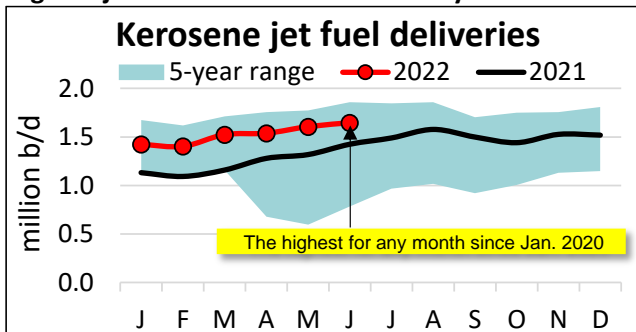
Distillate deliveries of 3.9 mb/d increased by 2.4% m/m from May but were down by 0.7% y/y compared with June 2021.



DAT iQ industry trendlines showed that spot trucks available in June rose by 7.0% m/m from May and 11.2% y/y versus June 2021, suggesting that freight trucking demand has [been sustained](#).

Kerosene Jet Fuel

Highest jet fuel demand since January 2020

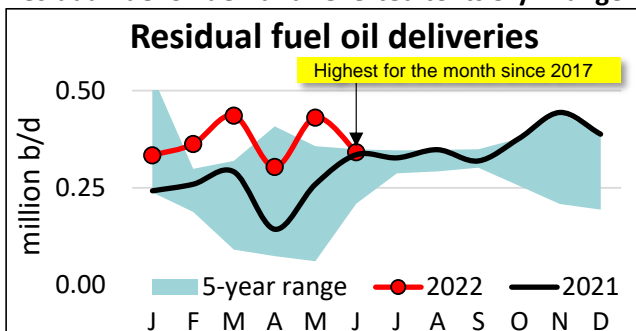


Kerosene-type jet fuel deliveries of 1.6 mb/d in June rose by 2.5% m/m from May and 15.4% y/y compared with June 2021 to their highest for any month since January 2020.

High-frequency data from [Flightradar24](#) and [TSA](#) showed that the total number of passenger and cargo flights increased by 7.8% m/m, while air passenger volumes rose by 4.8% m/m. The International Air Transport Association (IATA) also reported international air travel has [rebounded](#) and air cargo was buoyed by eased Omicron-related restrictions in China.

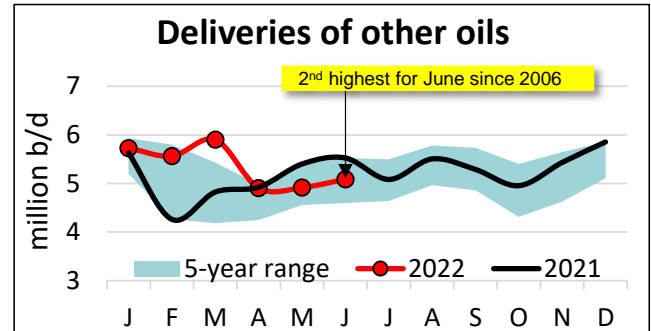
Residual Fuel Oil

Residual fuel oil demand reverted to its 5-yr. range



Deliveries of residual fuel oil, which is used as a marine bunker fuel and internationally in electric power production, space heating and industrial applications, were 0.3 mb/d in June, which reflected a decrease of 20.6% m/m from May but an increase of 2.1% y/y versus June 2021.

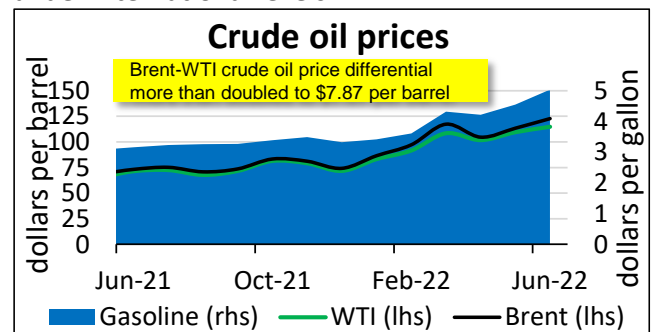
Other Oils – Naphtha, Gasoil, Propane & Propylene
Other oils' demand 2nd highest for June since 2006



Deliveries of refinery and petrochemical liquid feedstocks – that is, naphtha, gasoil, and propane/propylene (“other oils”) – were 5.1 mb/d in June, the second-highest reading for June since 2006. This reflected an increase of 3.5% m/m, but a decrease of 7.9% y/y compared with June 2021, which likely reflected continued emergence from the pandemic and consequently lower demand for medical plastics, films, and packaging.

Prices

Domestic crude oil prices nearly \$8 per barrel under international levels



In June, West Texas Intermediate (WTI) crude oil prices increased by 4.8% m/m to \$114.84 per barrel. By contrast, Brent crude oil spot prices increased by 8.3% m/m to \$122.71 per barrel, which implied a Brent-WTI crude oil price differential of \$7.87 per barrel in June, up from \$3.79 per barrel in May.

Crude oil remained the top input cost in making gasoline per [EIA](#). The U.S. average conventional gasoline price was \$5.03 per gallon in June, up by 10.7% m/m from May and 36.4% y/y compared with June 2021 to a record-high nominal level, per [EIA](#).

Macroeconomy

Leading indicators showed slower industrial growth and weak consumer sentiment

API’s Distillate Economic Indicator™, which is based primarily on diesel/distillate supply, demand, and inventories, had a reading of +0.9 in June and a three-month average of +0.9, suggesting that U.S. industrial production and broader economic activity have continued to grow, but at a slowed rate.

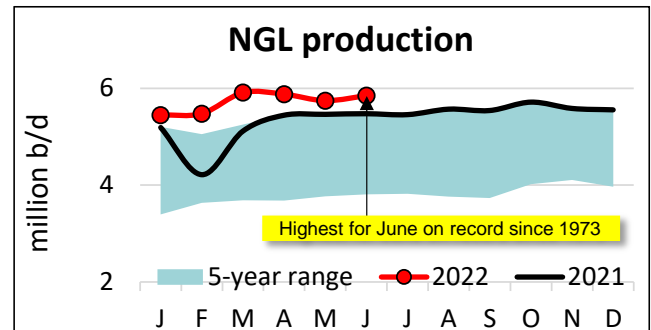
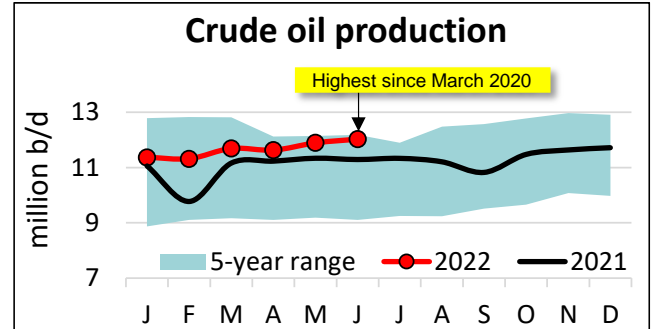
The Institute for Supply Management’s manufacturing Purchasing Managers Index ([PMI](#)) had a reading of 53.0 in June, a 3.1 percentage point decrease from May. Index values above 50.0 suggest an expansion in the overall economy, and the manufacturing PMI exceeded that threshold for a 25th consecutive month. Within the index, there were monthly increases in the index’s measures of production, imports, inventories, and customers’ inventories. And there were monthly decreases in the index’s measures of employment, prices, supplier deliveries, new orders, backlog of orders, and new export orders. Fifteen manufacturing industries surveyed reported growth in June. Three industries reported contraction in June compared with May: Paper Products, Wood Products, and Furniture & Related Products.

The [University of Michigan’s consumer sentiment index](#) fell to 51.1 in early July from readings of 50.0 in June and 58.4 in May. Driven by high consumer price inflation, the June reading was the index’s lowest recorded value on record since 1952 and comparable to the low point of the 1980 recession.

According to the [Bureau of Labor Statistics \(BLS\)](#), the unemployment rate held steady at 3.6% for a fourth straight month in June. Non-farm payrolls increased by a preliminary estimate of 372,000 m/m.

Supply

2nd straight monthly increase in U.S. crude oil production



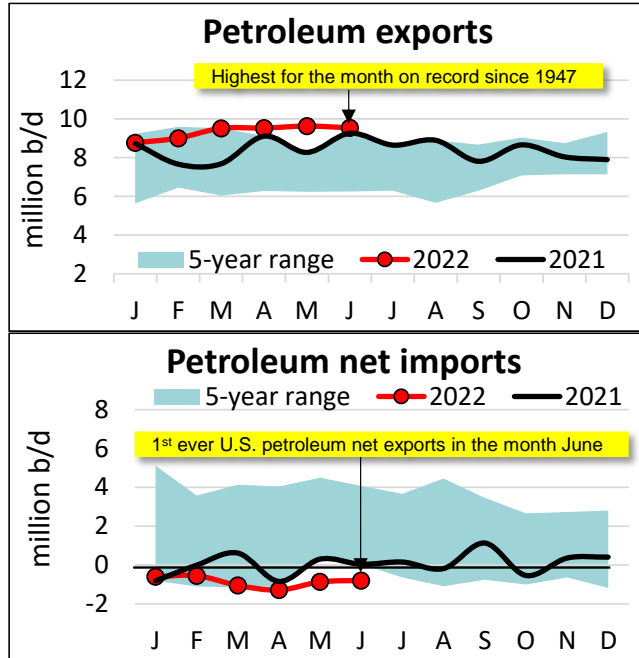
U.S. crude oil production of 12.0 mb/d in June increased by 1.1% m/m from May and 6.5% y/y compared with June 2021. This remained 0.9 mb/d below the highest U.S. crude oil production, which reached almost 13.0 mb/d in November 2019. Through the first half of 2022, U.S. crude oil production averaged 0.7 mb/d above that over the same period in 2021.

[Baker Hughes](#) reported 587 active oil-directed rigs in June, a 3.2% m/m (18 rigs) increase from May but 29.1% less than the 790 rigs that ran in June 2019, which as a benchmark preceded the strongest U.S. crude oil production later that year.

Natural gas-directed drilling rose by 2.8% m/m (4 rigs) to 153 rigs in June at the same time as natural gas futures prices in June at Henry Hub exceeded \$7.50 per million Btu for every delivery month through February 2023. The extraction of natural gas liquids (NGLs) depends to the relative values of ethane, propane, and butane, which historically have tended to correspond with those of crude oil. NGL production rose by 2.5% m/m to 5.7 mb/d, its highest level for the month of June on record since 1973.

International trade

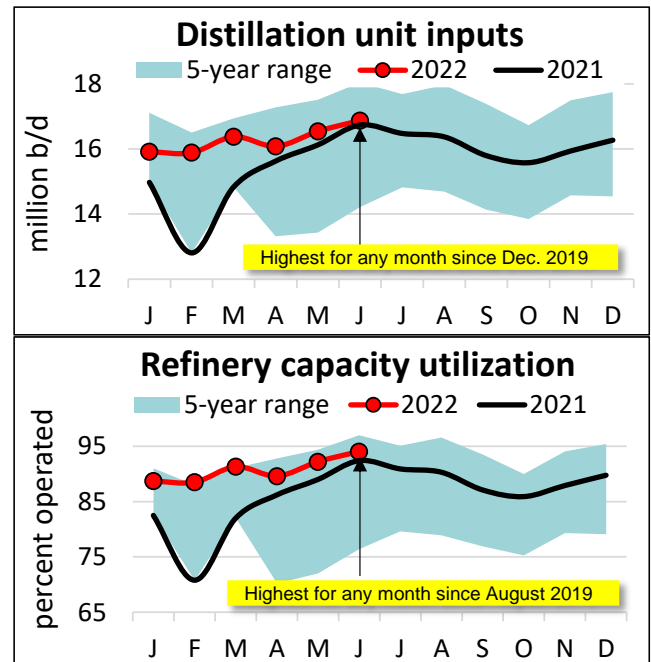
Highest U.S. petroleum exports for June since 1947



U.S. petroleum exports – crude oil and refined products – of 9.5 mb/d in June were the highest for the month on record for any month since 1947. Consequently, the U.S. remained a petroleum net exporter of 0.8 mb/d in June and averaged net exports of 0.9 mb/d through the first half of 2022.

Industry operations

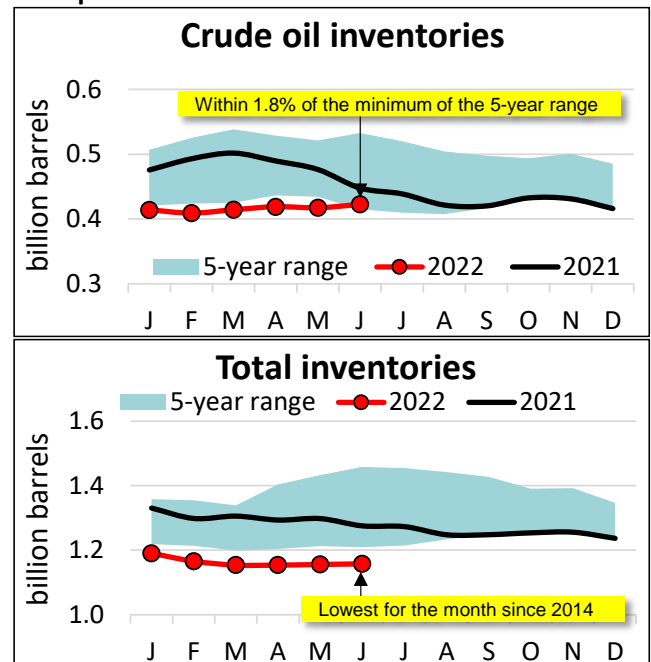
U.S. refining gross inputs and capacity utilization rates at their highest since 2019



In June, U.S. refinery throughput, measured by gross inputs into crude distillation units, was 16.9 mb/d and implied a capacity utilization rate of 94.0%. The throughput and capacity utilization rates rose by 2.0% m/m and 1.8% m/m, respectively, from May. June marked the highest capacity utilization rate since August 2019 and the highest gross inputs since December 2019.

Inventories

The continuation of the lowest monthly crude and total petroleum inventories since 2014



U.S. crude oil inventories rose by 1.3% m/m from May but were down 5.6% y/y vs. June 2021 to 422.8 million barrels, the lowest for the month since 2014. Total petroleum inventories, including crude oil and refined products (but excluding the Strategic Petroleum Reserve) of 1.16 billion barrels rose by 0.2% m/m from May but were down by 9.0% y/y compared with June 2021, also their lowest for the month since 2014.

ESTIMATED UNITED STATES PETROLEUM BALANCE¹
(Daily average in thousands of 42 gallon barrels)

Disposition and Supply	June			Year-to-Date		
	2022 ²	2021	% Change	2022 ³	2021	% Change
Disposition:						
Total motor gasoline.....	9,057	9,273	(2.3)	8,710	8,539	2.0
Finished reformulated.....	2,976	3,051	(2.5)	2,749	2,672	2.9
Finished conventional.....	6,081	6,222	(2.3)	5,961	5,867	1.6
Kerosene-jet.....	1,645	1,425	15.4	1,524	1,235	23.4
Distillate fuel oil.....	3,912	3,940	(0.7)	3,992	3,952	1.0
≤ 500 ppm sulfur.....	3,900	3,937	(0.9)	3,975	3,935	1.0
≤ 15 ppm sulfur.....	3,892	3,904	(0.3)	3,967	3,887	2.1
> 500 ppm sulfur.....	12	4	200.0	17	18	(5.6)
Residual fuel oil.....	342	335	2.1	369	255	44.7
All other oils (including crude losses)	5,089	5,525	(7.9)	5,306	5,106	3.9
Reclassified ⁴	110	39	na	210	156	na
Total domestic product supplied.....	20,155	20,537	(1.9)	20,110	19,243	4.5
Exports.....	9,535	9,262	3.0	9,331	8,457	10.3
Total disposition.....	29,690	29,799	(0.4)	29,441	27,700	6.3
Supply:						
Domestic liquids production						
Crude oil (including condensate).....	12,025	11,288	6.5	11,657	10,990	6.1
Natural gas liquids.....	5,848	5,474	6.8	5,718	5,162	20.0
Other supply ⁵	1,149	1,178	(2.4)	1,172	1,098	6.7
Total domestic supply.....	19,022	17,940	6.0	18,547	17,250	7.5
Imports:						
Crude oil (excluding SPR imports).....	6,464	6,602	(2.1)	6,319	5,903	7.0
From Canada.....	3,568	4,016	(11.2)	3,770	3,721	1.3
All other.....	2,896	2,585	12.0	2,548	2,182	16.8
Products.....	2,271	2,696	(15.8)	2,148	2,434	(11.8)
Total motor gasoline (incl. blend.comp).....	954	960	(0.6)	674	860	(21.6)
All other.....	1,317	1,737	(24.2)	1,474	1,574	(6.4)
Total imports.....	8,735	9,298	(6.1)	8,466	8,337	1.5
Total supply.....	27,757	27,238	1.9	27,013	25,587	5.6
Stock change, all oils.....	(1,933)	(2,560)	na	(2,428)	(2,113)	na
Refinery Operations:						
Input to crude distillation units.....	16,872	16,743	0.8	16,284	15,215	7.0
Gasoline production.....	9,850	9,949	(1.0)	9,470	9,284	2.0
Kerosene-jet production.....	1,681	1,383	21.5	1,593	1,208	31.9
Distillate fuel production.....	5,100	4,954	2.9	4,871	4,532	7.5
Residual fuel production.....	218	216	0.9	246	198	24.0
Operable capacity.....	17,944	18,128	(1.0)	17,943	18,118	(1.0)
Refinery utilization ⁶	94.0%	92.4%	na	90.8%	84.0%	na
Crude oil runs.....	16,359	16,190	1.0	15,778	14,732	7.1

1. Total supply, i.e., production plus imports adjusted for net stock change is equal to total disposition from primary storage. Total disposition from primary storage less exports equals total domestic products supplied. Information contained in this report is derived from information published in the API *Weekly Statistical Bulletin* and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2. Based on API estimated data converted to a monthly basis.

3. Data for most current two months are API estimates. Other data come from U.S. Energy Information Administration (including any adjustments).

4. An adjustment to avoid double counting resulting from differences in product classifications among different refineries and blenders.

5. Includes unaccounted-for crude oil, withdrawals from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol, and downstream blending of ethanol.

6. Represents "Input to crude oil distillation units" as a percent of "Operable capacity".

R: Revised. na: Not available.

ESTIMATED UNITED STATES PETROLEUM BALANCE¹
(Daily average in thousands of 42 gallon barrels)

	June 2022	May 2022	June 2021	% Change From	
				Month Ago	Year Ago
Stocks (at month-end, in millions of barrels):					
Crude oil (excluding lease & SPR stocks).....	422.8	417.5	448.0	1.3	(5.6)
Unfinished oils.....	88.4	87.3	93.0	1.3	(5.0)
Total motor gasoline.....	221.1	220.6	237.2	0.2	(6.8)
Finished reformulated.....	0.0	0.0	0.0	(0.1)	84.2
Finished conventional.....	17.9	18.4	18.6	(2.7)	(3.6)
Blending components.....	203.2	202.2	218.6	0.5	(7.1)
Kerosene-jet.....	40.9	40.2	44.7	1.7	(8.5)
Distillate fuel oil.....	110.8	109.2	140.1	1.5	(20.9)
≤ 500 ppm sulfur.....	103.0	100.8	130.9	2.2	(21.3)
≤ 15 ppm sulfur.....	99.7	94.3	127.4	5.8	(21.7)
> 500 ppm sulfur.....	7.8	8.4	9.2	(7.1)	(15.0)
Residual fuel oil.....	28.6	27.8	31.1	2.9	(8.2)
All other oils.....	244.9	253.0 R	277.4	(3.2)	(11.7)
Total all oils.....	1,157.5	1,155.6 R	1,271.5	0.2	(9.0)