



# PETROLEUM WATCH

## California Energy Commission

### July 2018

## Recent Petroleum News

### Prices

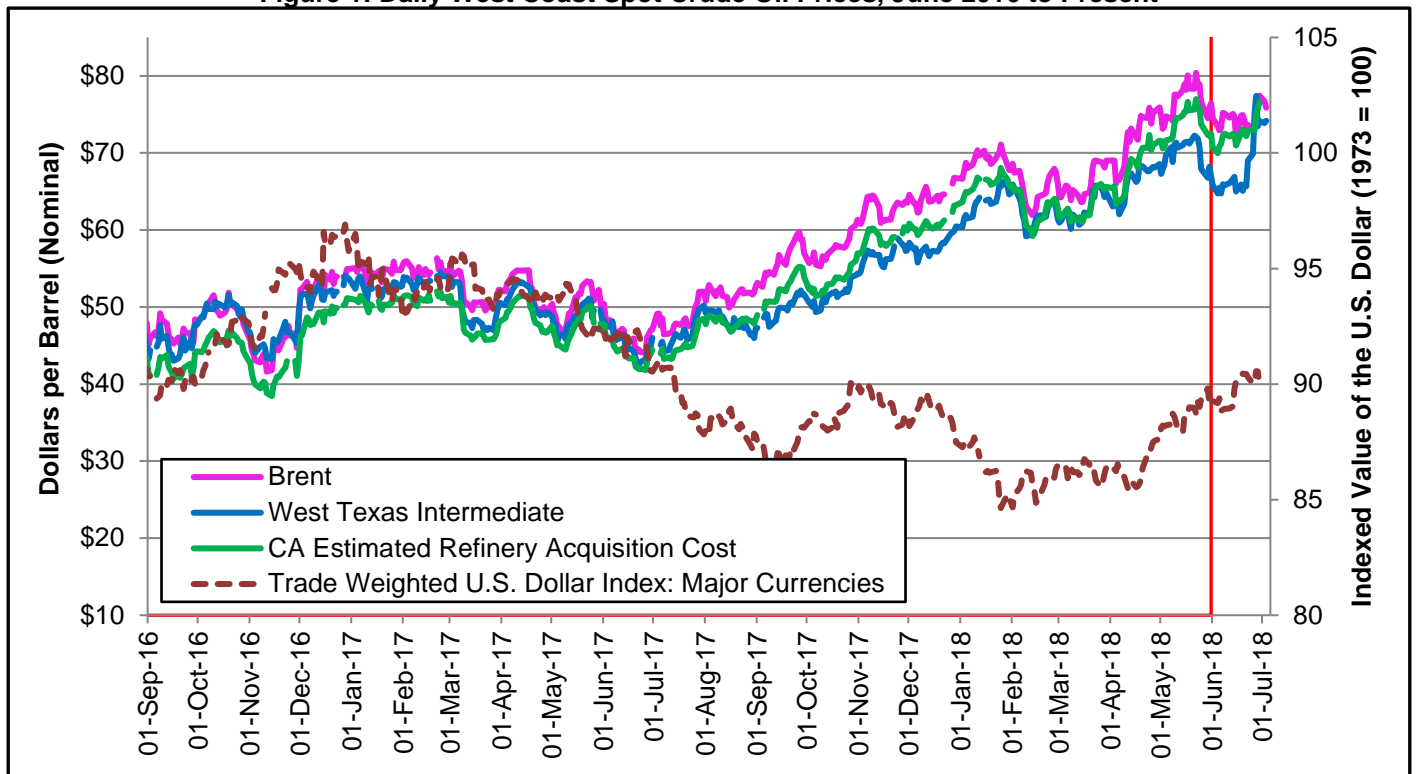
- **Crude Oil Prices:** Brent and West Texas Intermediate (WTI) crude prices closed at \$77.44 and \$74.17, respectively, on June 29 (**page 2**).
- **California Retail Gasoline Prices:** On June 25, prices reached \$3.56, a decrease of \$0.08 since the end of May. Through June, California prices averaged \$0.72 higher than the national average (**page 4**).
- **California Retail Diesel Prices:** On July 25, prices reached \$3.96, a decrease of \$0.04 from the end of May. Through June, California prices averaged \$0.73 higher than the national average (**page 5**).

### Refining News

- **Andeavor Golden Eagle/Martinez:** On June 13, a diesel hydrotreating unit shutdown for unplanned maintenance. The unit restarted June 15.
- **Andeavor Wilmington Refinery:** On June 5, a fluid catalytic cracking unit suffered a one-day upset and returned to normal production June 6.
- **Shell Martinez Refinery:** On May 4, maintenance began on a catalytic cracking unit, an alkylation unit, a hydrotreating unit, and hydrocracking unit. Maintenance completed on June 28.
- **Phillips 66 Wilmington:** On June 1, preparations and work began on a hydrotreating unit, hydrogen plant, and sulfur recovery unit. The hydrogen plant and sulfur recovery unit restarted June 7; the hydrotreating unit followed on June 11.

# Crude Oil Prices

Figure 1: Daily West Coast Spot Crude Oil Prices, June 2016 to Present



Source: U.S. Energy Information Administration (EIA), Oil Price Information Service (OPIS), and Federal Reserve Bank of St. Louis.  
 Note: Red lines on all graphs indicate end of previous *Petroleum Watch* data. Areas to the right indicate new data since last month.

In June, the Brent minus West Texas Intermediate (WTI) differential reached the largest value since February 2015 at \$9.83 (Figure 1). WTI prices increased the discount relative to the international benchmark Brent because of climbing U.S. production of crude oil and steady crude oil inventory levels in early June.<sup>1</sup> In the last week of June, U.S. crude oil inventories fell almost 10 million barrels to finish the month at 418 million barrels. This drop in inventory increased WTI prices and narrowed the differential dramatically, at times trading at a premium to the Brent for June 26 and 27.

The California Estimated Refiner Acquisition Cost (CA-RAC) rose roughly \$6 from \$71 a barrel to \$77 a barrel in June.<sup>2</sup> While all featured crude oil indices rose from the June starting values, overall June averages finished roughly 2 to 3 percent less than the May averages. This was because crude oil prices steadily pushed higher in May before an end-of-the-month drop. June prices, on the other hand, spent June closer to April prices then rose in the final week of June (especially the WTI price). Overall, June averages are now 50 to 65 percent higher than the same time last year (sidebar), with reports of Organization of the Petroleum Exporting Countries supply

| <u>Crude Oil Prices</u>   |            |
|---------------------------|------------|
| <u>June 2018 vs 2017</u>  |            |
| <u>(Percent Change)</u>   |            |
| Brent                     | 56% higher |
| WTI                       | 50% higher |
| CA-RAC                    | 65% higher |
| <u>June 2018 Averages</u> |            |
| Brent                     | \$76.86    |
| WTI                       | \$69.98    |
| CA-RAC                    | \$73.82    |
| <u>June 29, 2018</u>      |            |
| Brent                     | \$77.44    |
| WTI                       | \$74.13    |
| CA-RAC                    | \$76.67    |

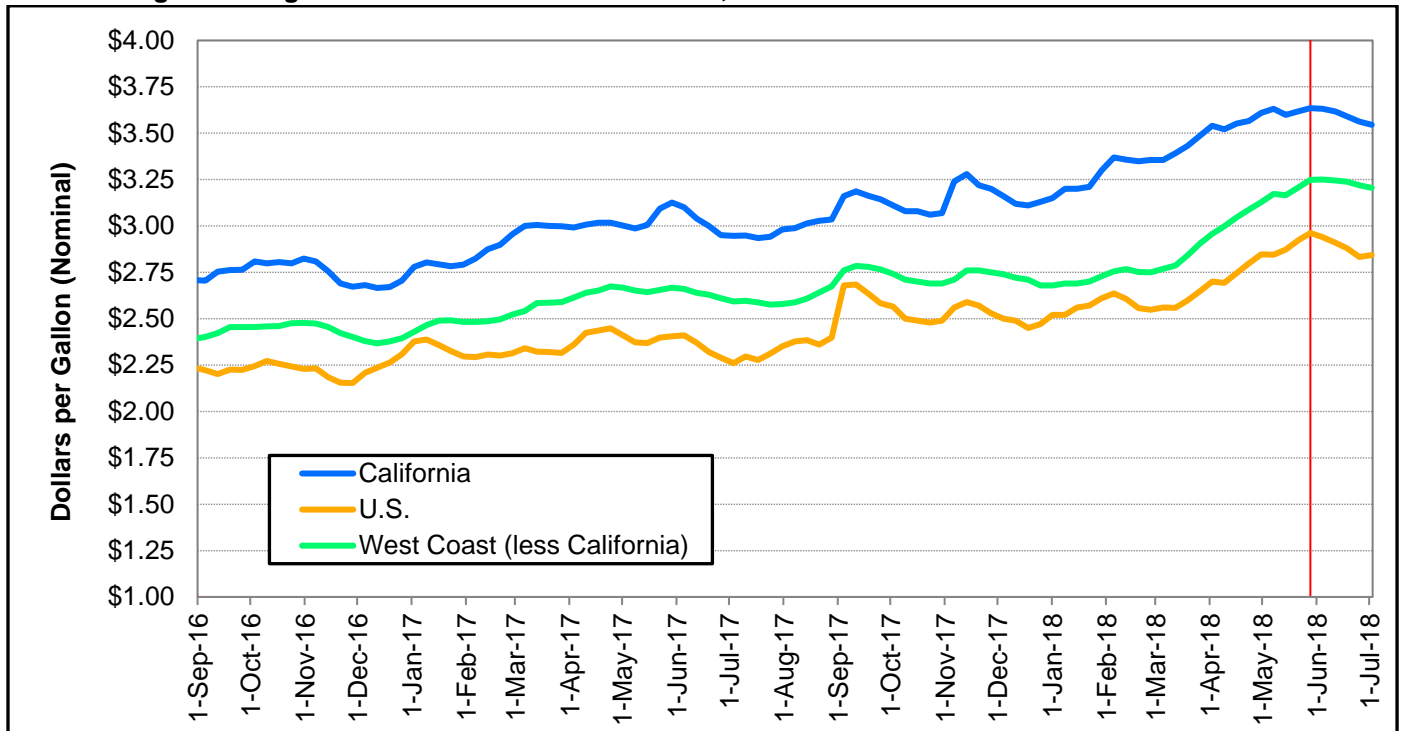
1 Energy Information Administration: <https://www.eia.gov/petroleum/weekly/crude.php>.

2 CA-RAC is a weighted average of the prices of California (San Joaquin Valley) crude, Alaskan crude, and foreign crude.

agreements with Russia likely preventing any dramatic near-term easing in prices.

## Gasoline and Diesel Retail Prices

Figure 2: Regular Grade Gasoline Retail Prices, California vs. West Coast vs. United States



Source: U.S. Energy Information Administration

Gasoline retail prices across the United States saw slight declines throughout June. California gas prices dropped 8 cents between May 28 and June 25, outpacing the rest of the West Coast, where prices fell only 3 cents (Figure 3). The United States as a whole averaged a 13-cent drop across the same period. United States retail prices in June 2018 were nearly 20 percent greater than June 2017 (sidebar). This demonstrates the power of crude oil prices on gasoline, as California’s synthetic crude acquisition index is nearly \$30 higher than June 2017 (page 2).

California’s year-over-year change is surprisingly lower than the rest of the national trend by 4 percentage points (sidebar). However, this is a symptom of an abnormal 2017 rather than a “weird” 2018. In May 2017, California refineries suffered through interruptions that increased the prices of gasoline \$0.08 cents in one week (May 15 to May 22). This price increase was specific to California gasoline only (see Figure 3), as diesel prices lacked this brief upswing. This year, California refineries are in a stronger position and are without major refining interruptions. Nevertheless, the 2017 summer serves as a reminder that even \$0.10 movements in price can come and go quickly.

### Gasoline Prices

#### June 2018 vs 2017 (Percent Change)

|            |            |
|------------|------------|
| California | 19% higher |
| U.S.       | 23% higher |
| West Coast | 23% higher |

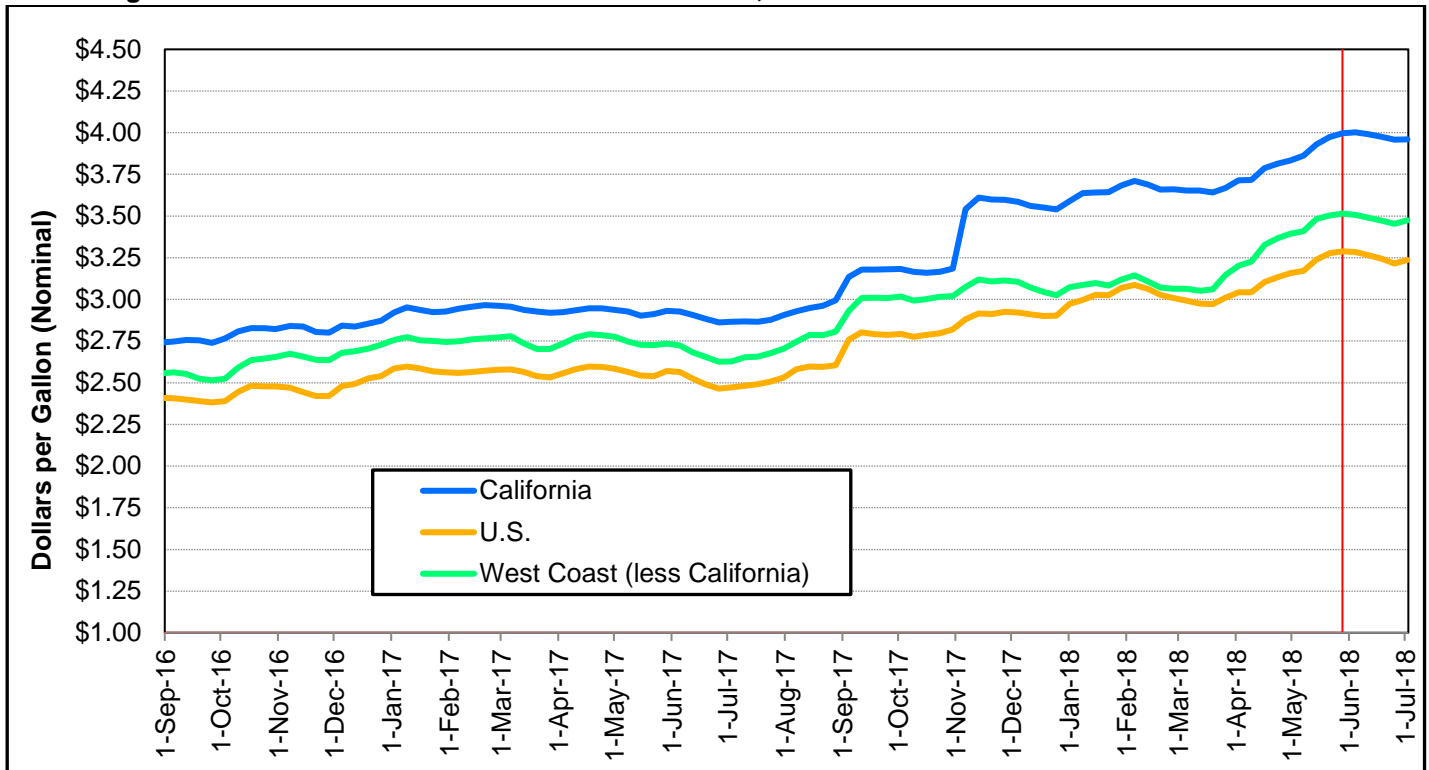
#### June 2018 Averages

|            |        |
|------------|--------|
| California | \$3.60 |
| U.S.       | \$2.89 |
| West Coast | \$3.24 |

#### Week of July 2, 2018

|            |        |
|------------|--------|
| California | \$3.55 |
| U.S.       | \$2.84 |
| West Coast | \$3.21 |

**Figure 3: No. 2 Diesel Ultra-Low-Sulfur Retail Prices, California vs. West Coast vs. United States**



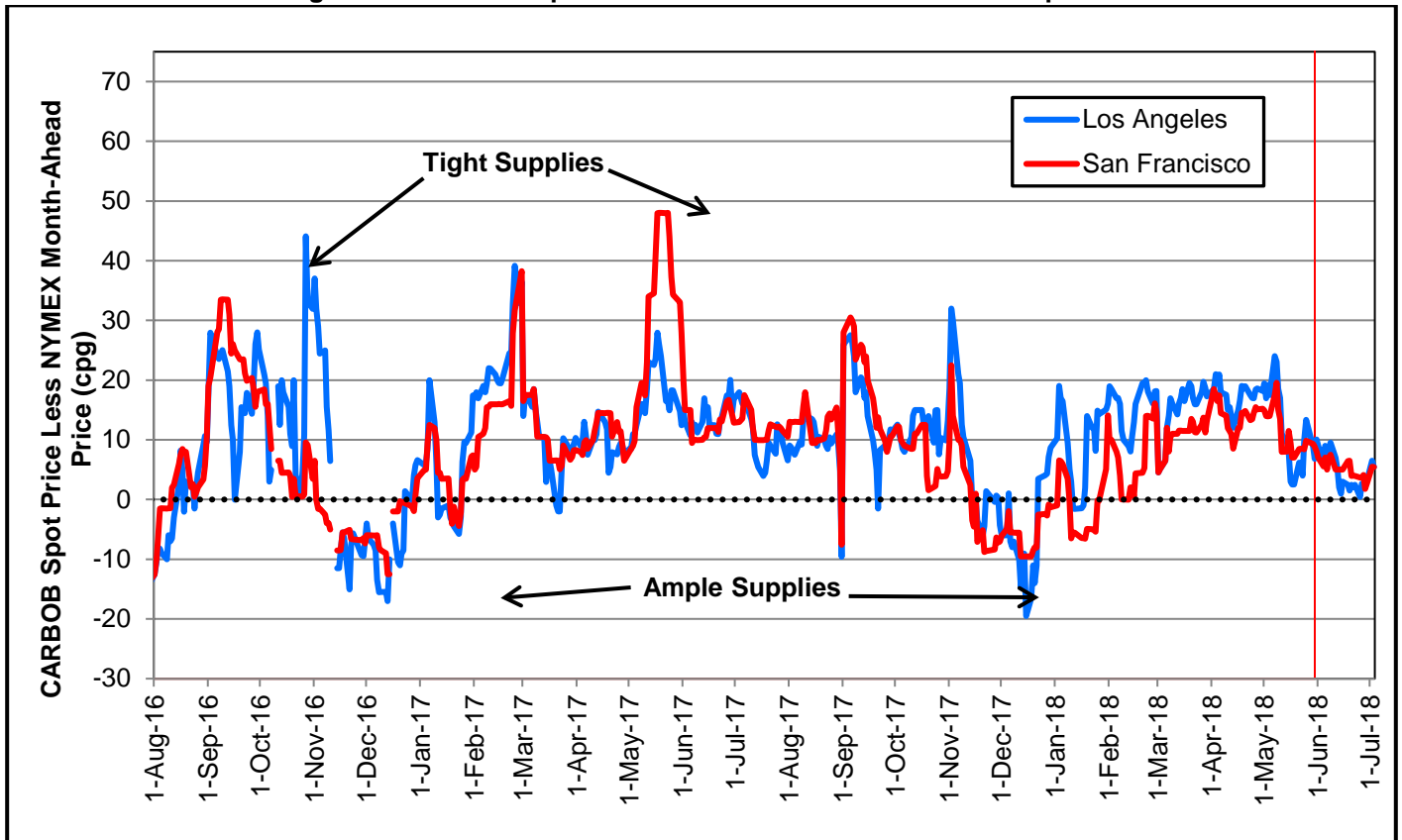
Source: U.S. Energy Information Administration

Retail diesel prices decreased across the United States this June. California and West Coast diesel prices both decreased \$0.4 from the last *Petroleum Watch* to \$3.96 and \$3.48, respectively, on June 25, while the average diesel price in the United States fell nearly \$0.05 to \$3.22 on June 25.

California diesel prices had higher year-over-year increases compared to the rest of the United States by 8 percentage points (**sidebar**). Diesel prices respect some of the same underlying factors that gasoline prices do, especially with the relationship with crude oil. In June, California diesel prices increased from crude oil price increases (**page 2**), which combined with the November 2017 excise tax increases. These tax increases were California-specific, which accounts for the imbalance of year-over-year changes between regions

| <u>Diesel Prices</u>        |                   |
|-----------------------------|-------------------|
| <u>June 2018 vs 2017</u>    |                   |
| <b>(Percent Change)</b>     |                   |
| <b>California</b>           | <b>38% higher</b> |
| <b>U.S.</b>                 | <b>30% higher</b> |
| <b>West Coast</b>           | <b>30% higher</b> |
| <u>June 2018 Averages</u>   |                   |
| <b>California</b>           | <b>\$3.98</b>     |
| <b>U.S.</b>                 | <b>\$3.25</b>     |
| <b>West Coast</b>           | <b>\$3.48</b>     |
| <u>Week of July 2, 2018</u> |                   |
| <b>California</b>           | <b>\$3.96</b>     |
| <b>U.S.</b>                 | <b>\$3.24</b>     |
| <b>West Coast</b>           | <b>\$3.48</b>     |

**Figure 4: California Spot Gasoline to NYMEX Futures Price Spread**



Source: U.S. Energy Information Administration and OPIS

The Los Angeles (LA) and San Francisco (SF) gasoline spot market differentials to the New York Mercantile Exchange (NYMEX) saw gradual and narrow decreases throughout June (Figure 4). The LA and SF differentials started at \$0.09 and \$0.07 on June 1 then moved to a monthly peak on June 8 of \$0.10 and \$0.08, respectively. The LA and SF differentials both fell on June 13, with LA and SF reaching \$0.02 and \$0.05 respectively. The LA differential would briefly fall to \$0.00 on June 25 before ending the month \$0.03 on June 29. The SF spot differential continued to increase to \$0.06 on June 19 before declining and converging with LA, ending the month at \$0.03 on June 29.

California's large gasoline inventory and strong production have continued to put downward pressure on the LA and SF differential. Gasoline production remains firmly in the five-year band, and inventory levels have remained above the five-year range for the past 24 consecutive weeks (Figure 5), leaving California well-supplied with gasoline. Because of California's large supply of gasoline, the LA and SF differentials are \$0.10 and \$0.08 lower, respectively, 70 percent and 61 percent less than compared to 2017. However, gasoline stocks have been decreasing consistently for six weeks, and this decrease might create price support for the LA and SF differentials.

### Gasoline Spot– Futures Spread

#### June 2018 vs 2017

|               |           |
|---------------|-----------|
| Los Angeles   | 10¢ lower |
| San Francisco | 8¢ lower  |

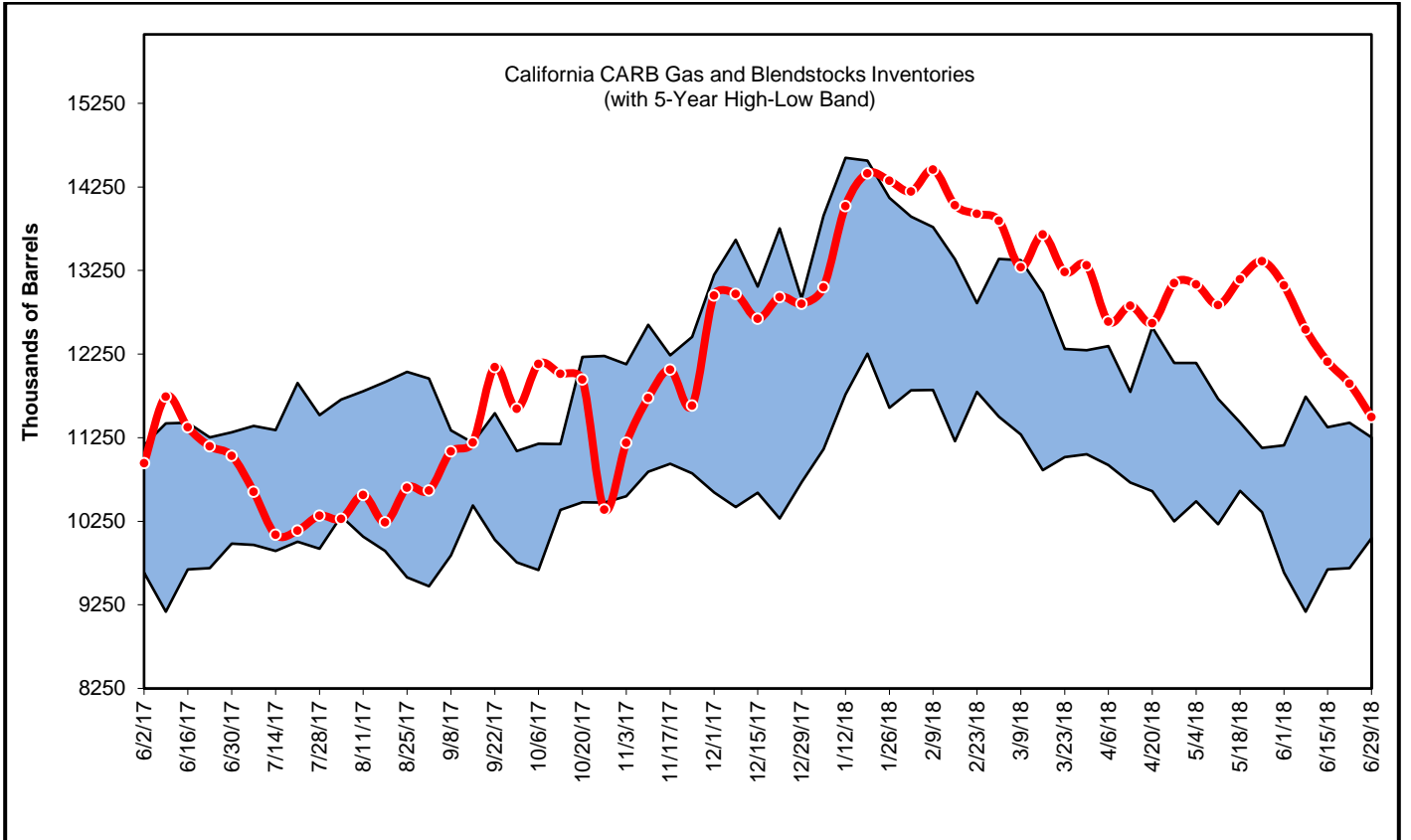
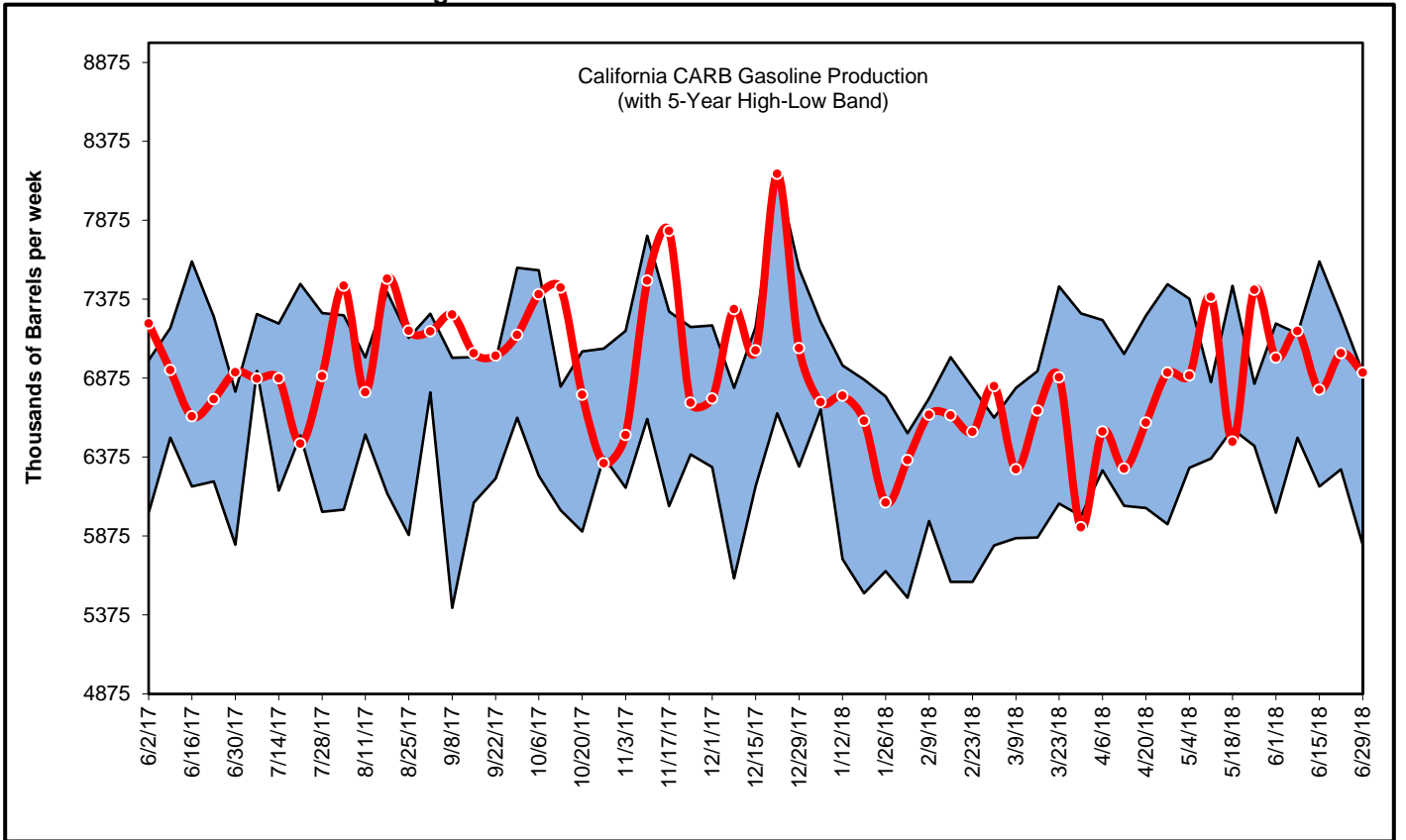
#### June 2018 Averages

|               |    |
|---------------|----|
| Los Angeles   | 4¢ |
| San Francisco | 5¢ |

#### June 29, 2018

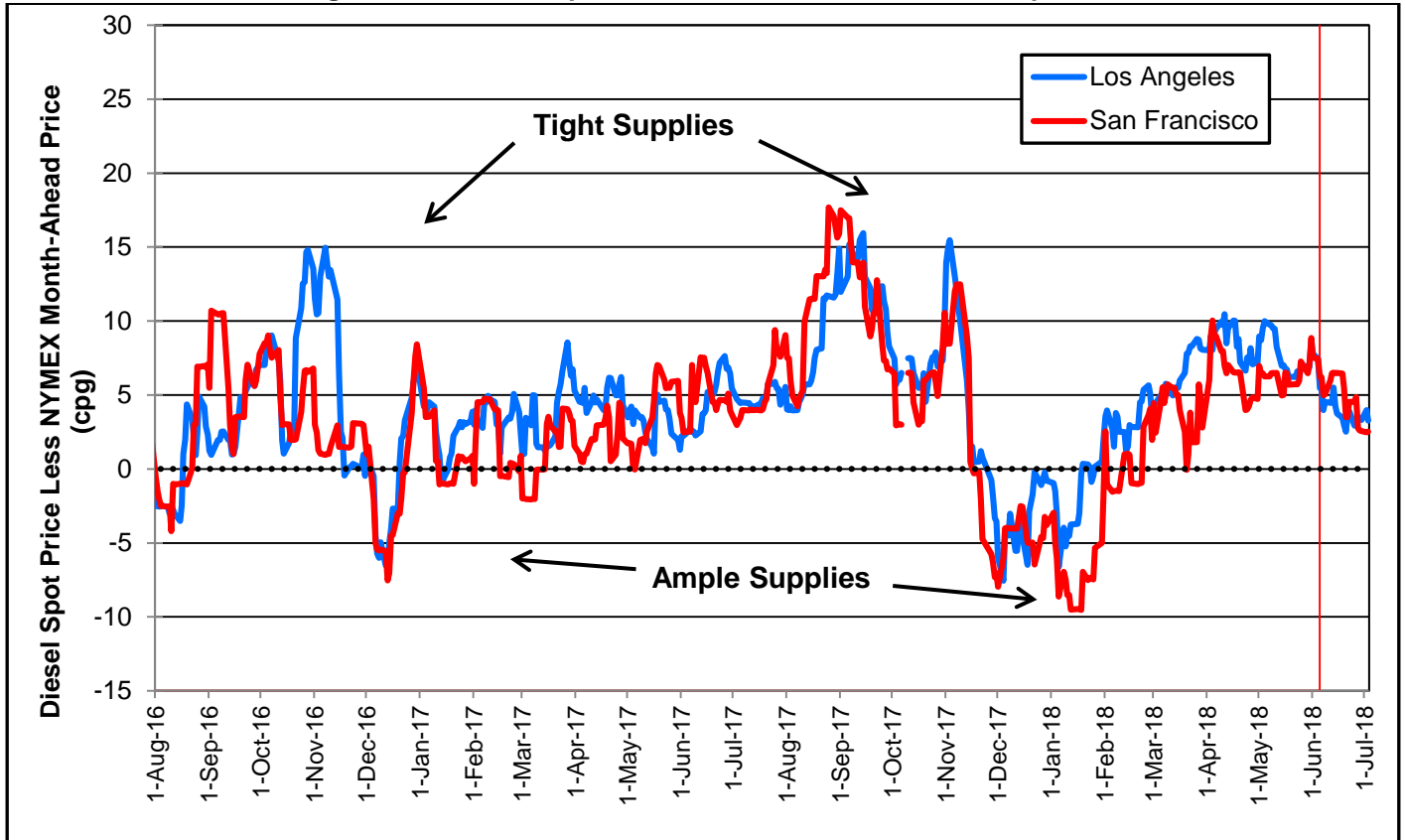
|               |    |
|---------------|----|
| Los Angeles   | 3¢ |
| San Francisco | 3¢ |

**Figure 5: Gasoline Production and Inventories**



Source: PIIRA data

**Figure 6: California Spot Diesel to NYMEX Futures Price Spread**



Source: U.S. Energy Information Administration and OPIS

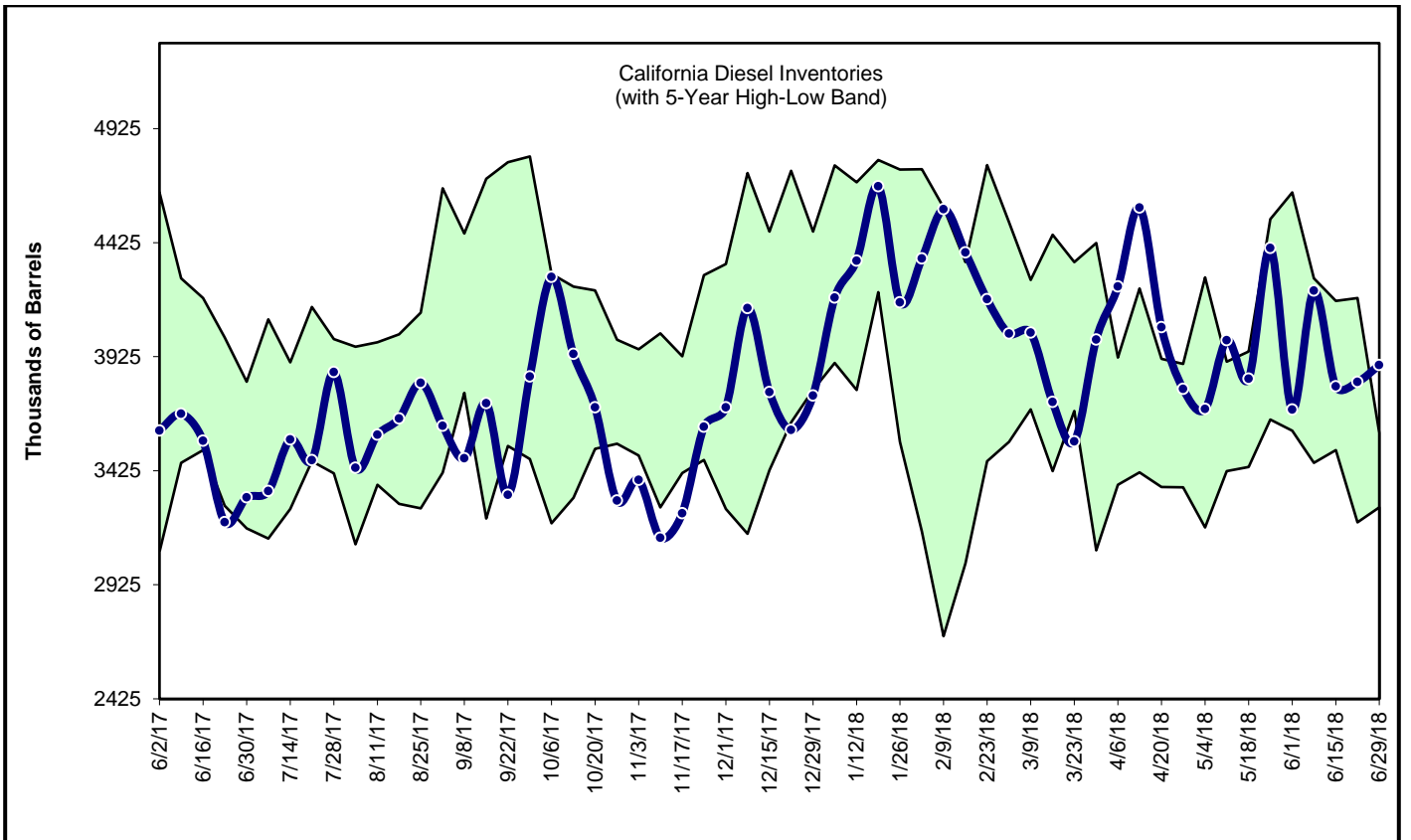
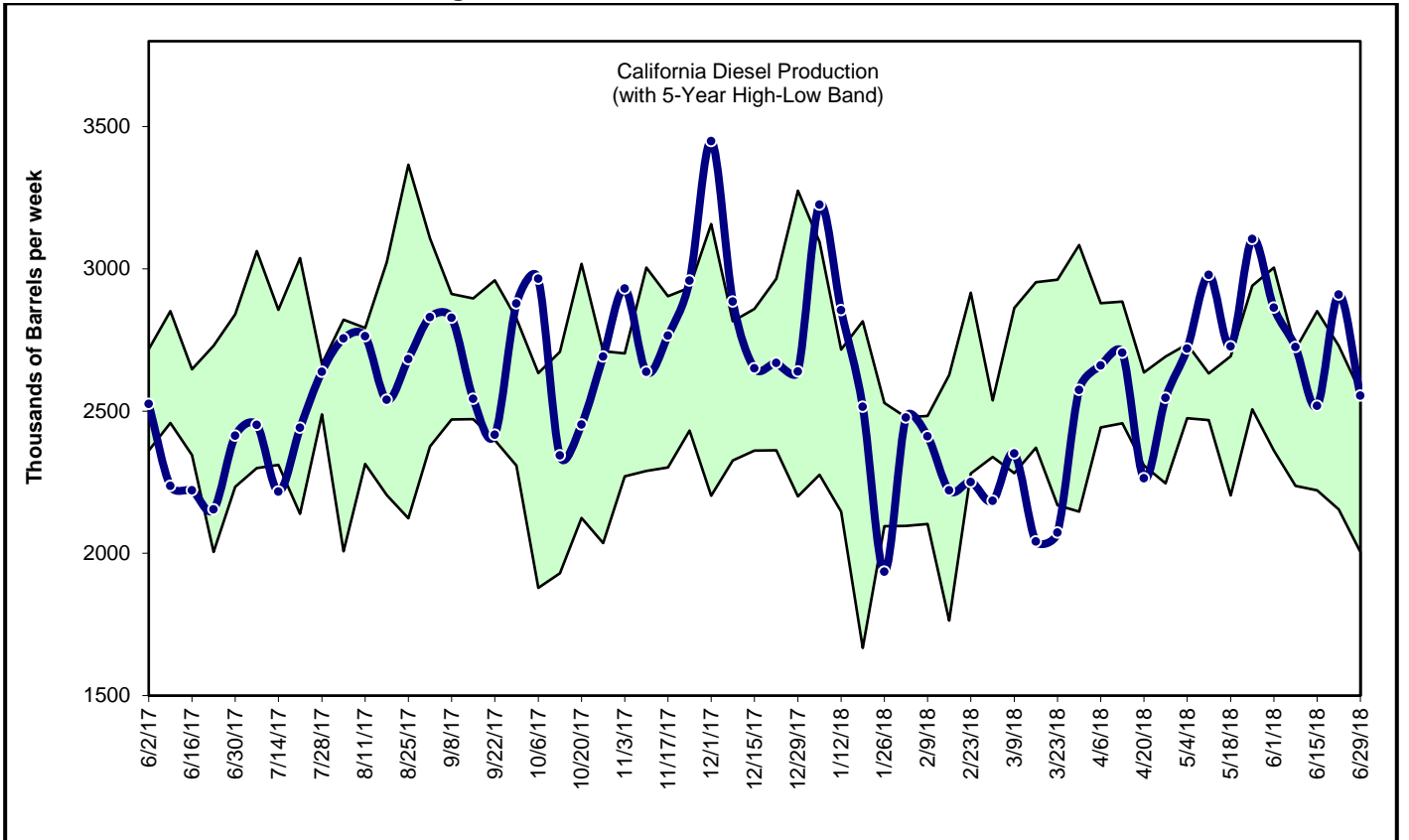
The LA diesel spot differential price averaged \$0.04 for June, matching the June 2017 spot price (sidebar). The LA spread started on a high of \$0.08 on June 1 and has decreased \$0.05 since to \$0.03 on June 29. The SF diesel spread averaged \$0.05 in June and decreased from \$0.08 on June 1 to \$0.03 on June 29 (Figure 6).

From January to June, SF and LA spot differentials averaged \$0.03 and \$0.05, respectively. During the second quarter, the SF spot differential increased \$0.07 from -\$0.01 to \$0.06, and the LA differential increased \$0.04 from \$0.03 to \$0.07. Both spreads have been on a decreasing trend since starting April at roughly \$0.10 each. In June, both spreads were 45 percent (for LA) and 17 percent (for SF) less than last month. As a result, the spreads started July 3 at \$0.03 each.

Diesel production in June remained healthy on the high end of the five-year band. Diesel inventory remained steady through June averaging 3.9 million barrels per week (bpw), almost perfectly between the June's five-year high of 4.6 million bpw and low of 3.2 million bpw (Figure 7). On June 29, the California diesel inventories increased 70,000 barrels from the June 22 to move above the five-year high at 3.9 million barrels.

| <b><u>Diesel Spot-Futures Spread</u></b> |                  |
|--|------------------|
| <b><u>June 2018 vs 2017</u></b>          |                  |
| <b>Los Angeles</b>                       | <b>10¢ lower</b> |
| <b>San Francisco</b>                     | <b>8¢ lower</b>  |
| <b><u>June 2018 Averages</u></b>         |                  |
| <b>Los Angeles</b>                       | <b>4¢</b>        |
| <b>San Francisco</b>                     | <b>5¢</b>        |
| <b><u>June 29, 2018</u></b>              |                  |
| <b>Los Angeles</b>                       | <b>3¢</b>        |
| <b>San Francisco</b>                     | <b>3¢</b>        |

Figure 7: Diesel Production and Inventories



Source: PIRA data