

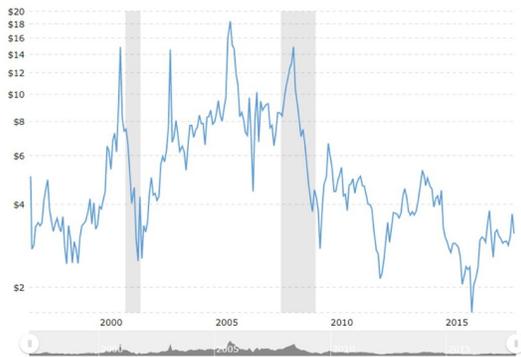


Natural Gas in Underground Storage

The weekly EIA Natural Gas Storage Report advised that there was a withdrawal of 141Bcf from Underground Storage for the week ending December 14th, 2018.

This is 6Bcf above the median forecast of a 135Bcf withdrawal, the average prediction of sector analysts and traders in the Dow Jones Newswires weekly survey. The withdrawal compares with -182Bcf last year and -144Bcf for the five-year average. Storage is **697Bcf below last year** for the same week and **720Bcf below the 5-year average**. Working gas in storage stands at 2,773Bcf.

[Read More](#)



Natural Gas Pricing

As of 10:02AM CST, January 2018, (the prompt month) Natural Gas was trading at \$3.77, -\$0.56 from one week ago and the 1-Year Spread average was \$3.06, -\$0.13 from one week ago.

Crude Oil Pricing

As of 9:53AM CST, January, 2018, (the prompt month) Light, Sweet Crude on the NYMEX was at **\$46.64**, **-\$4.81** from one week ago.

Crude Oil & Natural Gas

| INDEX | UNITS | PRICE | CHANGE | %CHANGE | CONTRACT | TIME (EST) | 2 DAY |
|----------------------------------|-----------|-----------|--------|---------|----------|------------|-------|
| CL1.COM WTI Crude Oil (Nymex) | USD/bbl | 51.45 | -0.30 | -0.59% | Jan 2019 | 10:35 AM | |
| CO1.COM Brent Crude (ICE) | USD/bbl | 60.41 | -0.26 | -0.43% | Feb 2019 | 10:35 AM | |
| CP1.COM Crude Oil (Tokyo) | JPY/kl | 41,430.00 | -10.00 | -0.02% | May 2019 | 10:40 AM | |
| NG1.COM Natural Gas (Nymex) | USD/MMBtu | 4.22 | +0.09 | +2.13% | Jan 2019 | 10:35 AM | |

U.S. Petroleum Balance Sheet, Week Ending 12/14/2018

| Petroleum Stocks (Million Barrels) | Current Week | |
|--|--------------|---------|
| | 12/14/18 | 12/7/18 |
| Crude Oil | 1,090.6 | 1,091.5 |
| Commercial (Excluding SPR) ¹ | 441.5 | 442.0 |
| Strategic Petroleum Reserve (SPR) ² | 649.1 | 649.6 |
| Total Motor Gasoline ³ | 230.1 | 228.3 |
| Reformulated | 0.0 | 0.0 |
| Conventional | 25.5 | 24.3 |
| Blending Components | 204.5 | 204.0 |
| Fuel Ethanol | 23.9 | 22.9 |
| Kerosene-Type Jet Fuel | 39.8 | 39.0 |
| Distillate Fuel Oil ³ | 119.9 | 124.1 |
| 15 ppm sulfur and Under ³ | 105.0 | 109.3 |
| > 15 ppm to 500 ppm sulfur | 4.5 | 4.2 |
| > 500 ppm sulfur | 10.5 | 10.6 |
| Residual Fuel Oil | 27.7 | 28.2 |
| Propane/Propylene | 73.2 | 76.6 |
| Other Oils ⁴ | 273.4 | 278.8 |
| Unfinished Oils | 88.1 | 90.6 |
| Total Stocks (Including SPR) ^{2,3} | 1,878.7 | 1,889.5 |
| Total Stocks (Excluding SPR) ³ | 1,229.6 | 1,239.9 |

Crude Oil Inventory

US crude inventories decreased by 0.5 million barrels to 441.5 million barrels for the week ended December 14th, according to data released yesterday morning by the US Department of Energy. Traders in the Reuters poll projected a decrease of 2.4 million barrels.

U.S. Rotary Rigs

U.S. Rotary Rigs drilling for natural gas were unchanged at 198 for the week of December 14th. The number of rigs currently drilling for Natural Gas was +18 from last year. US Rigs drilling for oil were -4 at 873. There are 126 more rigs targeting oil than last year. Canadian rigs were -12 at 174 for the week. Rigs targeting oil remain 82% of all US drilling activity.

| | North American Rig Count | | | Change | | Percent Change | |
|----------------|--------------------------|------------|------------|----------|----------|----------------|--------|
| | 12/14/2018 | 12/07/2018 | 12/15/2017 | Weekly | Annual | Weekly | Annual |
| Total U.S. | 1,071 | 1,075 | 930 | (4) | 141 | -0.4% | 15.2% |
| Offshore | 23 | 23 | 19 | 0 | 4 | 0.0% | 21.1% |
| Land | 1,048 | 1,052 | 911 | (4) | 137 | -0.4% | 15.0% |
| Inland Waters | 3 | 2 | 2 | 1 | 1 | 50.0% | 50.0% |
| Oil | 873 | 877 | 747 | (4) | 126 | -0.5% | 16.9% |
| Percent | 81.5% | 81.6% | 80.3% | -0.1% | 1.2% | | |
| Gas | 198 | 198 | 183 | 0 | 15 | 0.0% | 8.2% |
| Percent | 18.5% | 18.4% | 19.7% | 0.1% | -1.2% | | |
| Directional | 73 | 72 | 69 | 1 | 4 | 1.4% | 5.8% |
| Horizontal | 927 | 933 | 801 | -6 | 126 | -0.6% | 15.7% |
| Vertical | 71 | 70 | 60 | 1 | 11 | 1.4% | 18.3% |
| Gulf of Mexico | 23 | 23 | 19 | 0 | 4 | 0.0% | 21.1% |
| Gulf Oil | 19 | 18 | 15 | 1 | 4 | 5.6% | 26.7% |
| Percent | 82.6% | 78.3% | 78.9% | 4.3% | 3.7% | | |
| Gulf Gas | 4 | 5 | 4 | -1 | 0 | -20.0% | 0.0% |
| Percent | 17.4% | 21.7% | 21.1% | -4.3% | -3.7% | | |
| Canada | 174 | 186 | 238 | (12) | (64) | -6.5% | -26.9% |
| Oil | 95 | 102 | 134 | (7) | (39) | -6.9% | -29.1% |
| Percent | 54.6% | 54.8% | 56.3% | -0.2% | -1.7% | | |
| Gas | 79 | 84 | 104 | (5) | (25) | -6.0% | -24.0% |
| Percent | 45.4% | 45.2% | 43.7% | 0.2% | 1.7% | | |
| North America | 1,245 | 1,261 | 1,168 | (16) | 77 | -1.3% | 6.6% |
| Prices | | | | | | | |
| Oil \$/bbl. | \$51.62 | \$52.69 | \$57.20 | (\$1.07) | (\$5.58) | -2.0% | -9.8% |
| Oil \$/mmbtu | \$8.90 | \$9.08 | \$9.86 | (\$0.18) | (\$0.96) | -2.0% | -9.8% |
| Gas \$/mmbtu | \$4.30 | \$4.42 | \$2.72 | (\$0.12) | \$1.58 | -2.7% | 58.3% |



Geopolitical

(CNN) Teen tells climate negotiators they aren't mature enough: Greta Thunberg, a 15-year-old Swedish environmental activist, all but shamed the 190 countries represented at the United Nations COP24 conference in Poland last week.



Weather

The AccuWeather 1-5 day Outlook forecasts above-normal temps for the most of the US with the exception of the deep Southeast, which will be at normal or below-normal temps. The 6-10 Day Outlook forecasts the Eastern half of the country at above-normal temps with the Center at normal temps and

The young activist accused negotiators -- gathered in Katowice to establish rules for the implementation of the 2015 Paris Agreement on climate change -- of abandoning future generations. "You say you love your children above all else and yet you are stealing their future in front of their very eyes," Thunberg said during an address to attendees on Wednesday.

The so-called "**Paris Rulebook**" agreed to on Saturday falls short of achieving its goals. Scientists and negotiators say that countries would have to do far more than what the rules stipulate to curb fossil fuel use and deforestation and avoid severe weather associated with global warming...



Sustainability and Renewables

Yellowstone Supervolcano Could Be an Energy Source. But Should It? The national park could power the entire continental U.S. with clean energy. Here's why it remains untapped: The northwest corner of Wyoming is boiling. There, 10,000 hydrothermal features transform **Yellowstone National Park** into an alien world with searing waters and steaming vents—all fueled by a **simmering supervolcano**.

most of the West at below normal temps.

11-15 Day Outlook forecasts the a similar picture. The 30-day Outlook projects normal temps for almost all of the US except the far North Central states, which are projected to be at above-normal temps.

The 90-Day Outlook projects the most of the country at normal temps with the exception of the Northwest, which is expected to be at above-normal temps and Southeast, expected to be at below-normal temps. Forecasters expect the ocean to eventually win over weather patterns, with at least a 90% chance that El Niño will develop this winter.

Status Quo

This Week's Key Take-Away

The NYMEX Natural Gas prompt month has dropped below \$4 and even got down to \$3.50 earlier in the week. While the withdrawal from underground storage was slightly more than anticipated the weather is projected to be warmer-than-normal for the near term. This means that it is now expected that the next few weeks of withdrawals will be lower than last year, thus narrowing the shortfall with last year's storage numbers.

While scientists agree that **Yellowstone is not likely to erupt anytime soon**, if and when it does, the event would be catastrophic. A massive magma chamber feeds this supervolcano, and an eruption would pack enough power to expel more than a thousand cubic kilometers of rock and ash at once. That would blanket most of the continental United States in debris and potentially plunge Earth into a volcanic winter...

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With wholesale electricity, both real-time and day-ahead power has been low across the nation. The highest numbers we have seen are in California which are still below \$.05/KWh.

| Next Day On-Peak Power (traded for 12/20/2018) | | |
|--|---|---------------------------------------|
| ISO-NE Mass Hub \$38.50 | MISO Indiana Hub \$34.25 | NYISO Zone G \$36.09 |
| PJM West Hub \$36.10 | ERCOT North \$28.00 | CAISO SP15 \$48.74 |

