

NATURAL GAS



NOVEMBER 14, 2018

Prior Day's NYMEX Dec-18 Contract (CT)



NYMEX NG Futures

Month	Close	Change
Dec-18	4.837	0.736
Jan-19	4.898	0.751
Feb-19	4.770	0.751
Mar-19	4.472	0.760
Apr-19	2.888	0.049
May-19	2.722	(0.006)
Jun-19	2.743	(0.010)
Jul-19	2.770	(0.013)
Aug-19	2.760	(0.019)
Sep-19	2.729	(0.026)
Oct-19	2.743	(0.027)
Nov-19	2.785	(0.026)
Dec-19	2.935	(0.020)
Jan-20	3.053	(0.016)
Feb-20	2.994	(0.004)
Mar-20	2.840	0.006
Apr-20	2.530	(0.030)
May-20	2.490	(0.032)
Jun-20	2.531	(0.028)
Jul-20	2.577	(0.025)
Aug-20	2.585	(0.025)
Sep-20	2.571	(0.024)
Oct-20	2.591	(0.022)
Nov-20	2.654	(0.013)
1YR Strip	3.426	0.243
2018	4.837	0.736
5YR Strip	2.778	0.035

IN THE NEWS

Why Natural Gas Prices Are Breaking Out—Forbes reported: Major disconnects between prices and fundamentals don't last forever. And when these disconnects revert back to the fundamentals, prices can move quickly and investors can make a lot of money. I highlighted a disconnect in August, when I warned that a Natural Gas Price Spike May Be Looming. I covered the funda-

- **Why Natural Gas Prices Are Breaking Out**
- **Natural Gas Skyrockets As China Pledges Huge Supply Boost**

mentals of the natural gas market in the U.S., particularly noting the dependence on weather and storage. Typically, from late spring to early fall, natural gas production outpaces demand. This "injection season" is when natural gas storage levels build ahead of the higher demand winter season. When storage levels get too high, natural gas prices tend to fall. This is especially true when storage levels are high going into injection season. When that happens, investors can usually bet on soft natural gas prices for the rest of the year. The inverse is usually true as well. When storage levels are low, especially headed into winter, natural gas prices are usually rising. For more on this story visit forbes.com or click <https://bit.ly/2ZzacI7S>

Natural Gas Skyrockets As China Pledges Huge Supply Boost—Oil Price reported: With an eye on last winter's natural gas supply debacle, Chinese state-owned energy giant CNOOC has pledged a 20 percent rise in gas supply, the company said on Tuesday. The company, one of three state-run oil majors, said that it will supply 24.6 billion cubic meters (bcm) of natural gas during the heating season that kicks off this week, up 20 percent year-on-year, to meet rising natural gas demand in the country. China is in the process of replacing over reliance on coal usage for both industrial and residential end users to offset rampant air pollution, particularly in its larger urban centers. By government mandate, at least 10 percent of the country's energy mix needed for power generation by 2020 must be natural gas, with further earmarks set for 2030. CNOOC, the country's largest oil and gas producer, said 6.1 bcm of natural gas will be supplied to seven northern provinces and municipalities, up 63.5 percent from last year. For more on this story visit oilprice.com or click <https://bit.ly/2FrqyYX>

12 MONTH CANDLESTICK (WEEKLY)



Prompt Natural Gas (NG) Daily Sentiment

BULLISH



RESISTANCE

5.16 & 5.49

SUPPORT

4.28 & 3.73

Trading Summary

NATURAL GAS

Futures	Close	Change
NG	4.837	0.736
Volume	1,232,635	370,038
Open Int.	1,520,152	(10,993)

CRUDE AND GASOLINE

Futures	Close	Change
Crude	56.25	0.56
RBOB	1.5606	0.0179
Crude/NG	11.63	(1.95)

METALS

Futures	Close	Change
Gold	1,207.90	

EQUITIES

Exchange	Close	Change
DOW	25,080.50	(205.99)
S&P 500	-1,147.74	(20.60)

CURRENCY

Currency	Close	Change
EUR/USD	1.1303	(0.0007)
USD/CND	1.2405	(0.0019)

Contact Us



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1025 Airport Pkwy
Gainesville, GA 30501

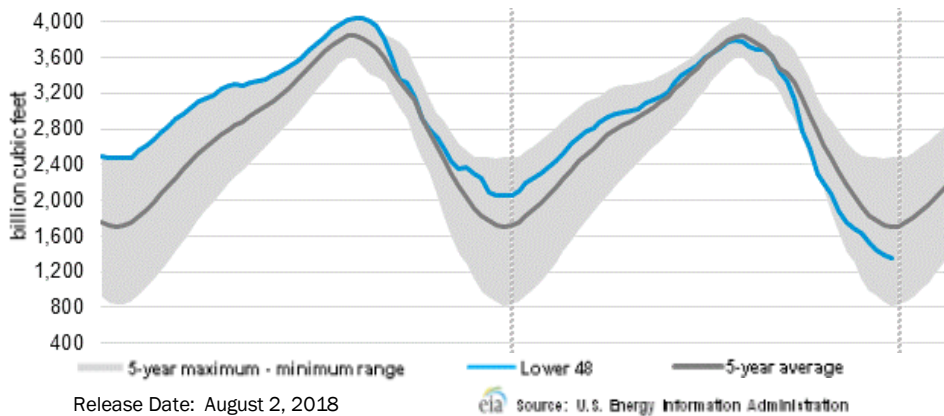
www.mansfield.energy

info@mansfieldoil.com

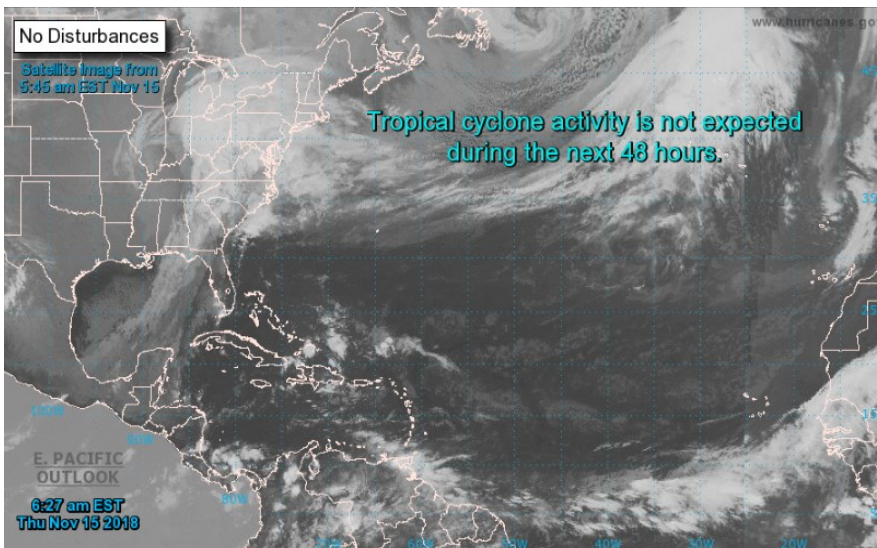
Phone: (800) 695-6626



WEEKLY GAS IN UNDERGROUND STORAGE WITH 5-YR RANGE



TROPICAL STORM ACTIVITY— ATLANTIC



Tropical Weather Outlook

NWS National Hurricane Center Miami FL

700 AM EST Thu Nov 15 2018

For the North Atlantic...Caribbean Sea and the Gulf of Mexico:

Tropical cyclone formation is not expected during the next 5 days.

Rig Count

Report Date: November 9, 2018

	Total	Change
US -	1,081	+14
CN -	196	(2)

EIA Weekly NG Storage Actual and Surveys for November 12, 2018

Released November 1, 2018

Range — +19 to +55

PIRA— +55

CITI — +59

Raymond James — +58

EIA ACTUAL — +48

Total Working Gas In Storage

3,208 BCF

+65 BCF (LAST WEEK)

(580) BCF (LAST YEAR)

(621) BCF (5-YR AVG)

U.S. Natural Gas Supply Gas Week 11/1 — 11/7

Average daily values (BCF/D):

Last Year (BCF/d)

Dry Production — +77.4

Total Supply — +83.0

Last Week (BCF/d)

Dry Production — +87.9

Total Supply — +91.9

[NEXT REPORT ON Nov 16]

U.S. Natural Gas Demand Gas Week 11/1 — 11/7

Average daily values (BCF/D):

Last Year (BCF/d)

Power — +22.8

Total Demand — +81.1

Last Week (BCF/d)

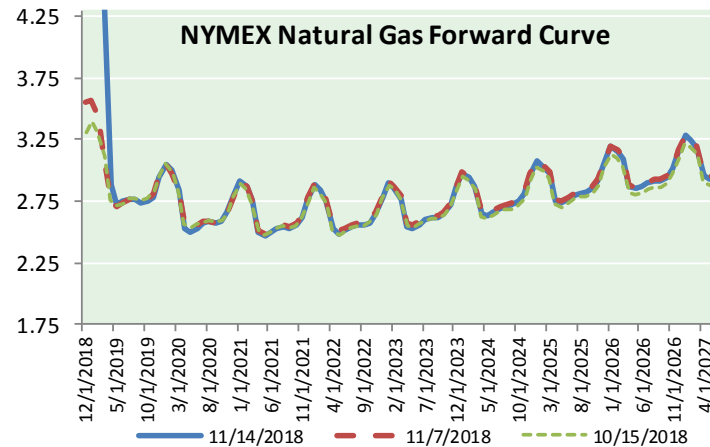
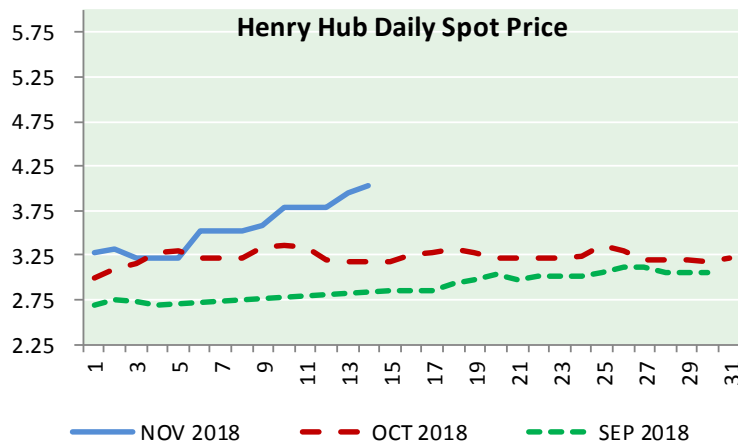
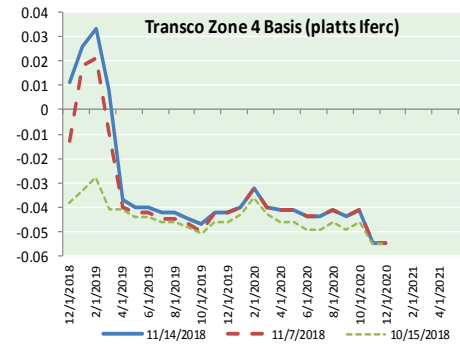
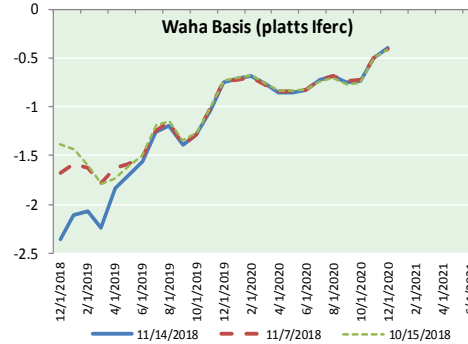
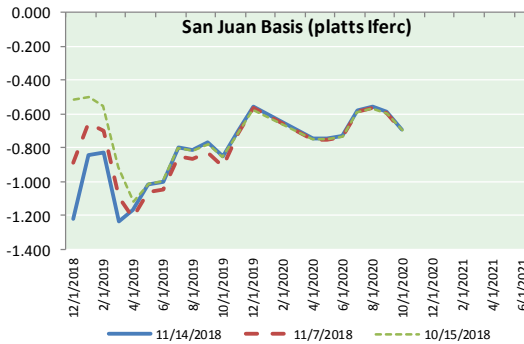
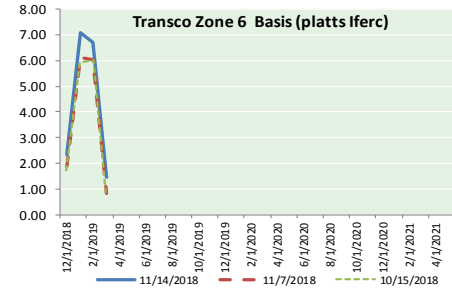
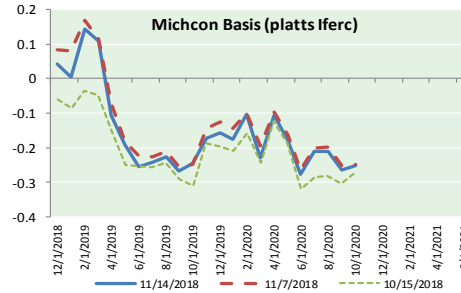
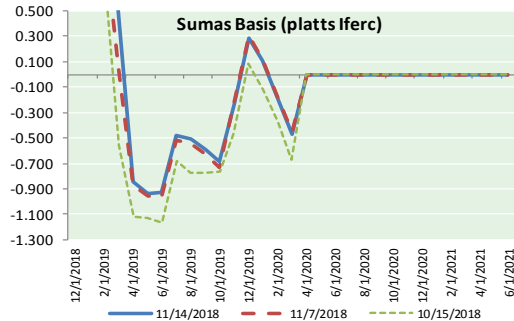
Power — +23.2

Total Demand — +83.6

[NEXT REPORT ON Nov 16]



NATURAL GAS BASIS FUTURES, HENRY HUB SPOT PRICES, AND FORWARD CURVE



NYMEX WTI Delivery

Month Average (\$/bbl)

(Excluding Weekends and Holidays)

Month: November 2018

Day	Price	Day	Price
1	63.69	16	
2	63.14	17	
3		18	
4		19	
5	63.10	20	
6	62.21	21	
7	61.67	22	
8	60.67	23	
9	60.19	24	
10		25	
11		26	
12	59.93	27	
13	55.69	28	
14	56.25	29	
15		30	

Average (Nov) 60.6540
(through 11/14/2018)

Average (Oct) 70.7578

Average (Sep) 70.0847

CME NG Option Prices

ATM Call

Month	Strike	Close	Imp Vol
Jan-19			
Feb-19	4.600	0.524	86.2
Mar-19			
Apr-19			
May-19			

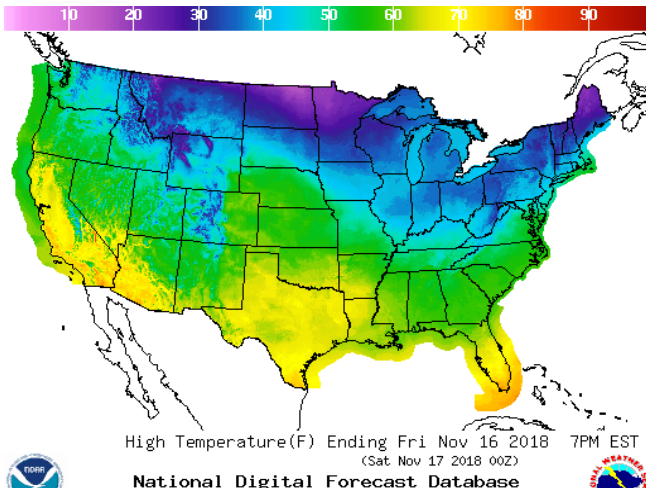
CME NG Option Prices

ATM Put

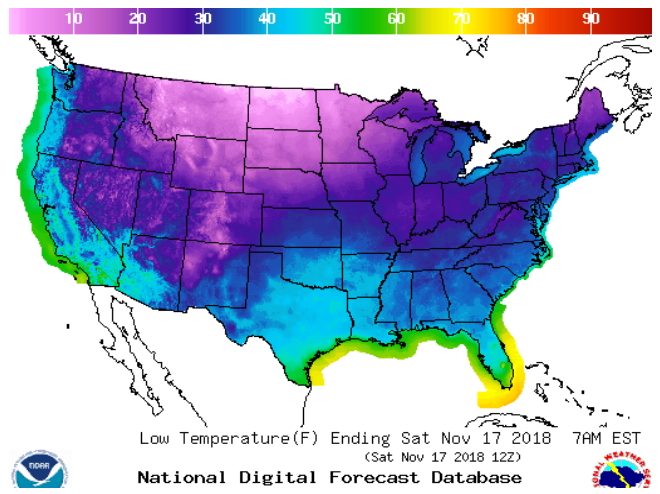
Month	Strike	Close	Imp Vol
Jan-19			
Feb-19	4.600	0.482	76.9
Mar-19			
Apr-19			
May-19			

WEATHER – HIGH / LOW TEMPERATURE TOMORROW

HIGH Temperature

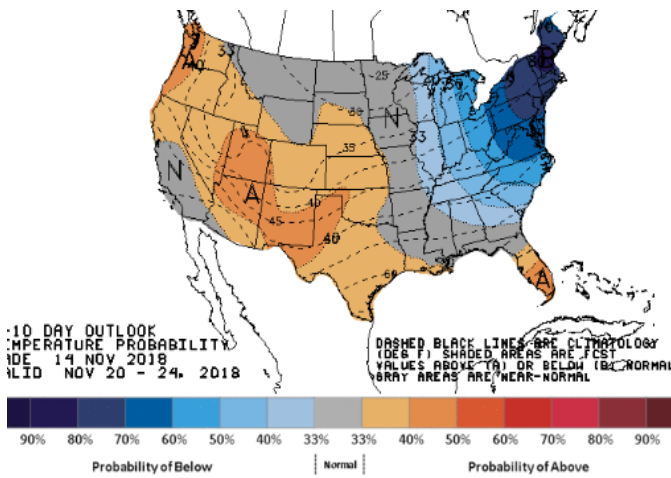


LOW Temperature

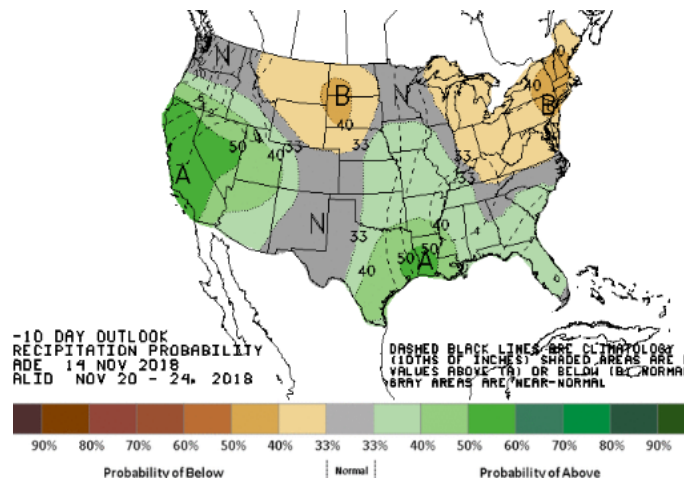


WEATHER – 6 TO 10 DAY OUTLOOK – NOAA

Temperature

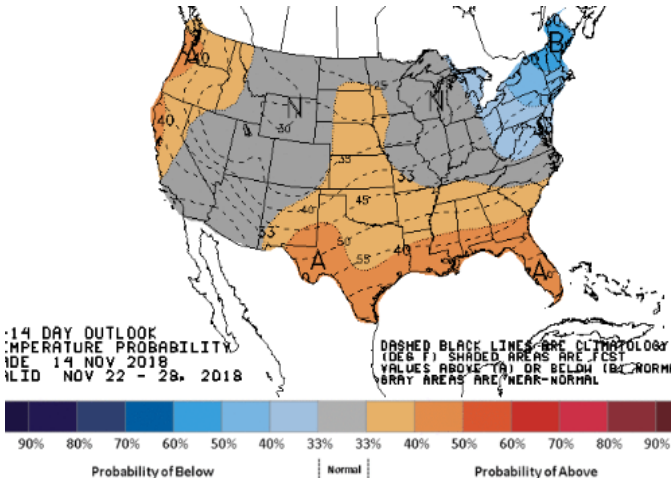


Precipitation

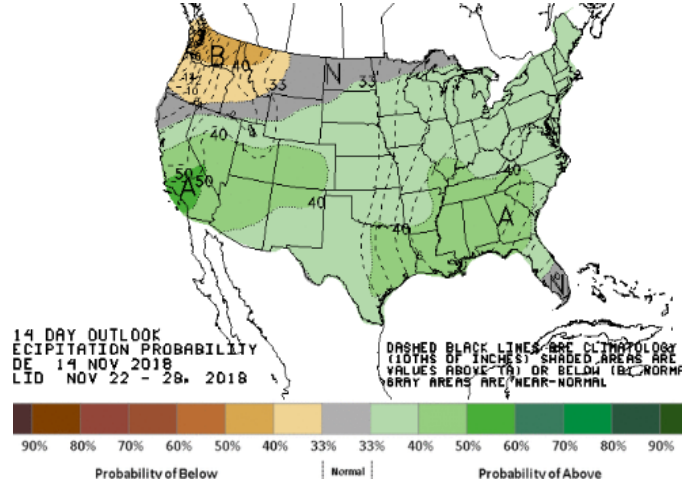


WEATHER – 8 TO 14 DAY OUTLOOK – NOAA

Temperature



Precipitation

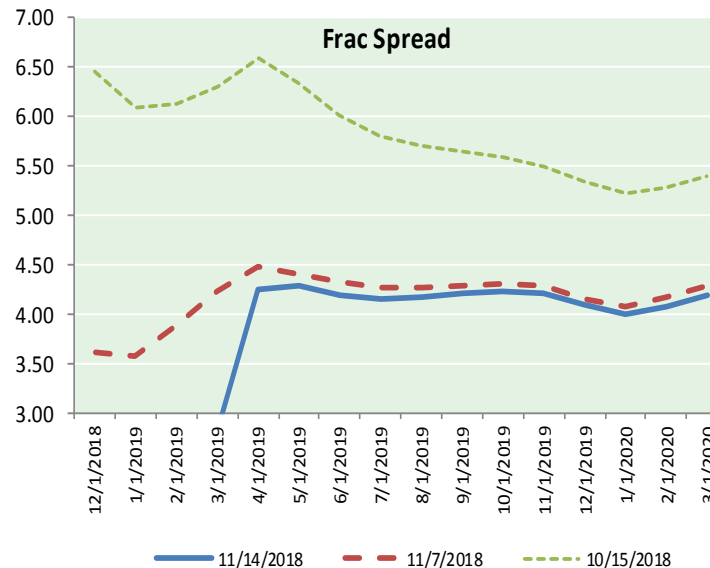
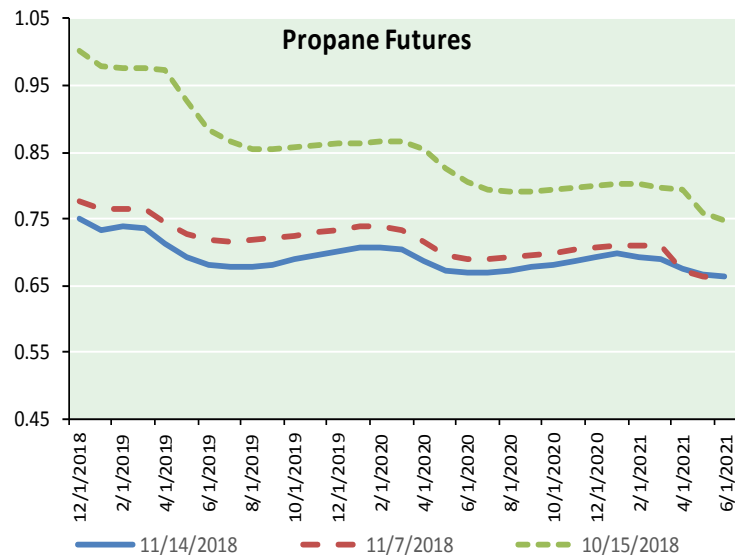
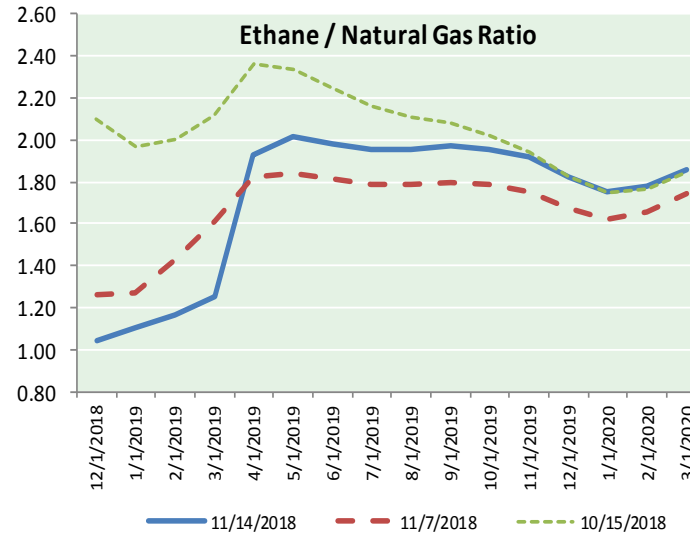
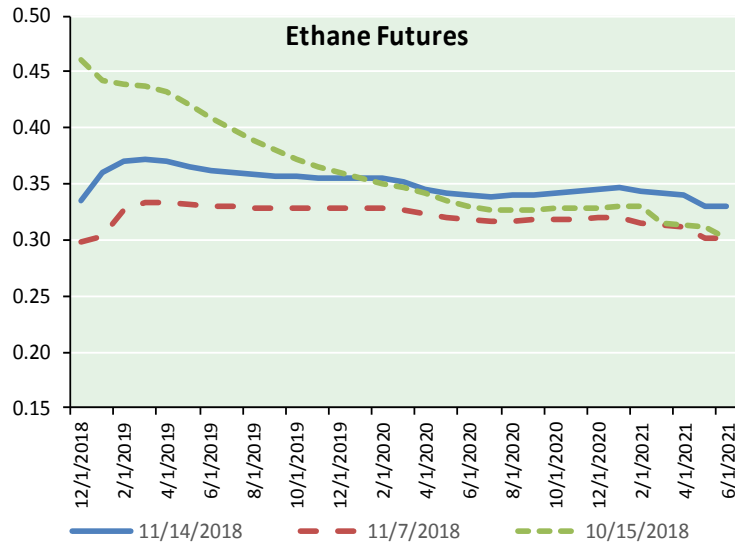


NATURAL GAS NEWS



ETHANE FUTURES, NG/ETHANE RATIO, PROPANE FUTURES, AND THE FRAC SPREAD

CME Future Prices



Month	Close	Change
Dec-18	0.335	0.015
Jan-19	0.360	0.028
Feb-19	0.371	0.024
Mar-19	0.372	0.021
Apr-19	0.370	0.019
May-19	0.364	0.016
Jun-19	0.362	0.015
Jul-19	0.360	0.014
Aug-19	0.359	0.014
Sep-19	0.358	0.014
Oct-19	0.356	0.014
Nov-19	0.355	0.014
1YR Strip	0.360	0.017

**CME Future Prices
Propane (C3)
Non-LDH— Mont Belvieu**

Month	Close	Change
Dec-18	0.752	0.022
Jan-19	0.734	0.039
Feb-19	0.738	0.039
Mar-19	0.735	0.038
Apr-19	0.713	0.034
May-19	0.691	0.032
Jun-19	0.681	0.030
Jul-19	0.678	0.029
Aug-19	0.679	0.028
Sep-19	0.682	0.027
Oct-19	0.689	0.028
Nov-19	0.695	0.028
1YR Strip	0.705	0.031

NATURAL GAS NEWS



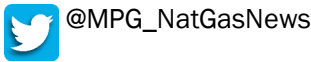
**Prompt WTI (CL) Crude
Daily Sentiment**

BEARISH



RESISTANCE
58.44 & 61.20
SUPPORT
53.84 & 52.00

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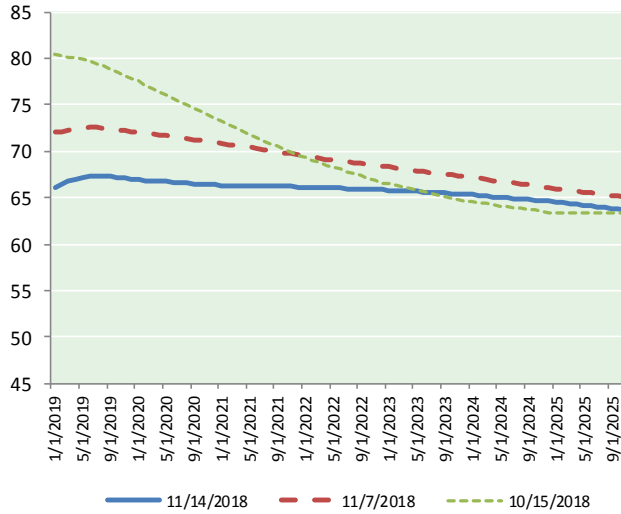


NYMEX Brent (BZ)

Futures

Month	Close	Change
Dec-18	56.25	0.56
Jan-19	56.44	0.60
Feb-19	56.67	0.62
Mar-19	56.89	0.61
Apr-19	57.09	0.61
May-19	57.29	0.61
Jun-19	57.48	0.61
Jul-19	57.63	0.60
Aug-19	57.76	0.59
Sep-19	57.88	0.60
Oct-19	57.98	0.61
Nov-19	58.06	0.61
Dec-19	58.13	0.60
Jan-20	58.15	0.60
Feb-20	58.16	0.59
Mar-20	58.18	0.58
Apr-20	58.21	0.58
May-20	58.23	0.56
Jun-20	58.26	0.55
Jul-20	58.25	0.54
Aug-20	58.28	0.52
Sep-20	58.30	0.51
Oct-20	58.34	0.49
Nov-20	58.37	0.47
1YR Strip 2018	57.29	0.60
5YR Strip	58.15	0.50

BRENT CRUDE FORWARD CURVE



FRAC Spread

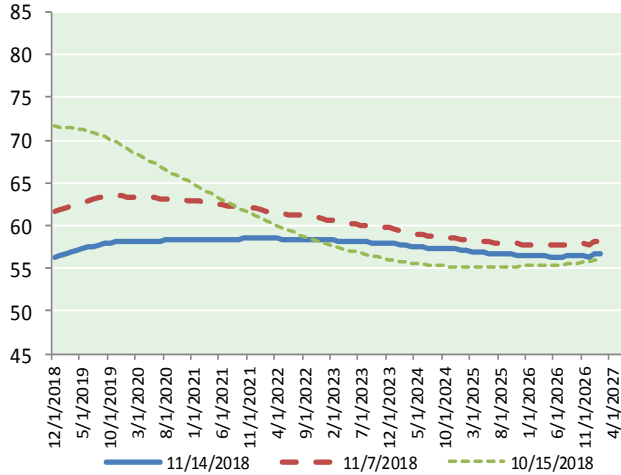
Specifications

Ethane : 42%	66,500 btu/g
Propane: 28%	90,830 btu/g
Butane: 11%	102,916 btu/g
Iso-Butane: 6%	98,935 btu/g
Natural Gasoline: 13%	115,021 btu/g

Prompt NGL Futures

	Dec-18	Close	Change
Butane	0.849	0.022	
Iso-Butane	0.907	0.052	
Nat Gasoline	1.146	0.018	

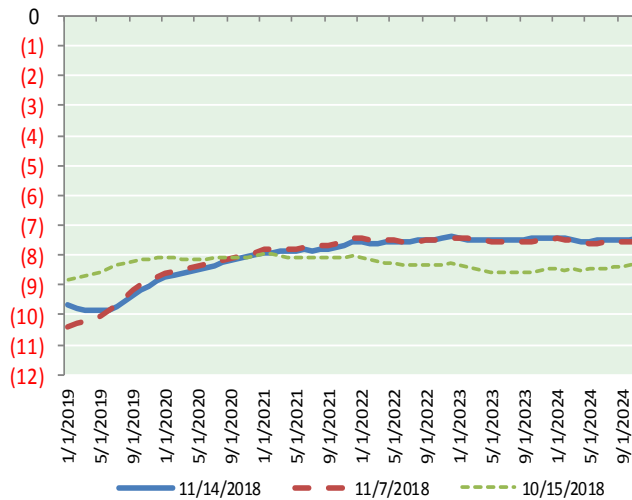
WTI CRUDE FORWARD CURVE



NYMEX WTI (CL) Futures

Month	Close	Change
Jan-19	66.12	0.65
Feb-19	66.47	0.66
Mar-19	66.74	0.66
Apr-19	66.96	0.65
May-19	67.16	0.64
Jun-19	67.30	0.63
Jul-19	67.34	0.61
Aug-19	67.32	0.60
Sep-19	67.24	0.58
Oct-19	67.16	0.58
Nov-19	67.08	0.59
Dec-19	66.97	0.59
Jan-20	66.91	0.60
Feb-20	66.85	0.60
Mar-20	66.80	0.61
Apr-20	66.75	0.61
May-20	66.71	0.62
Jun-20	66.67	0.62
Jul-20	66.59	0.62
Aug-20	66.54	0.63
Sep-20	66.50	0.63
Oct-20	66.46	0.63
Nov-20	66.43	0.63
Dec-20	66.40	0.64

WTI-BRENT SPREAD



1YR Strip	66.99	0.62
2018	#DIV/0!	#DIV/0!
5YR Strip	66.29	0.69