VIJSTREAM Monitor

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DUG PERMIAN BASIN

'We've Got To Move It'

JESSICA MORALES

HART ENERGY

Growing takeaway capacity concerns as production and activity continues to rise. These are the discussions heard at the DUG Permian Basin conference and exhibition in Fort Worth. This is an in-depth look at the buzz surrounding the Permian Basin and what sets the basin apart.

"I think it all starts with geology. There are so many other things that can get in the way of good geology. Good geology is really the foundation of what the Permian is based on. Without really good rock, it's hard to build a great foundation. We have proven both on the Midland side and the Delaware side that the geology is there. Now it's a matter of transitioning from great inventory to great value," said Clay Gaspar, president and COO of WPX Energy.

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Greg Andrews of Express-SS Industries said, "The show is very active, a lot bigger than I thought. This is my first time coming and I am starting to see the Eagle Ford and Permian is picking up. We are quoting more items, we are seeing more people quote to order a little bit faster and our business is up 60% year over year just in the Permian."

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"It's the basin that keeps on giving," remarked Cory Richards, CEO of PT Petroleum LLC.

That's the positive tone the industry has been waiting to see again. however, with activity ramping up in the Permian, companies are facing infrastructure and water management challenges.

Melissa Robinson of Roywell LLC knows that from living and working in Midland. "That's kind of key right now, how do we move water, how do we move oil. We are pumping it out from Midland, we got to move it. So that's definitely one of the big things all of these companies are highlighting.

"One of our clients on our marketing business is potentially Hobbs, N.M. Hobbs is trying to catch the overlap of the Permian. What's going on in the Permian, there is so much activity

there, infrastructure can't keep up. There's not enough hotel rooms, if you have driven out there you know what the traffic is doing. There are a lot of cities surrounding the Permian that are trying to get involved," said Josh Lowrey of Sky High.

"On the optimism side, higher prices support broader development. On the negative side, we are a victim of our own success we are developing bottlenecks in getting crude and natural gas out of the Permian Basin, and thus our differentials, in other words what we get paid relative to the benchmarks has widened," said Steve Pruett, president and CEO of Elevation Resources.

Oil-Rich Permian Basin Has A Serious Gas Dilemma

The Permian Basin remains the country's most bountiful play for oil production, but natural gas has become a major dilemma.

Lack of sufficient infrastructure has left the Permian



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overflowing with gas, giving the basin the dubious distinction of having the lowest prices of any major U.S. hub. The prices will only get worse as long as the pipeline shortage makes it hard to move the abundance of gas to market.



Some relief is on the way with the 430-mile Gulf Coast Express that will move gas from West Texas to eastern Texas, but the \$1.75 billion project isn't expected to come online until October 2019. The next pipeline won't show until 2022 at the earliest.

"What is needed is infrastructure," Jake Fells, senior energy analyst at BTU Analytics, told Hart Energy. "The Gulf Coast Express is under construction, but even when that comes online we are going to need another pipeline right on its heels or else we are going to end up right back in the same situation in 2020.

"As of now there really aren't any concrete projects on the way and these things take about two years to build. So, unless we get another big pipeline announcement going on the construction path in the next few months then we are going to probably be looking at being in this situation for the next several years.

"So we not only need infrastructure, but we need a lot of infrastructure out of the Permian."

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FRAC SPREAD

Isobutane Jumps As High As LeBron

JOSEPH MARKMAN | HART ENERGY

It's that time of year to fire up the LeBron-O-Meter and gauge NGL prices.

The last time isobutane approached \$1.60 per gallon (gal), as it did last week, was the last year that the Golden State Warriors and Cleveland Cavaliers were *not* in the NBA Finals.

It's been 52 months since isobutane reached that level in early February 2014, just a few months before the San

CURRENT FRAC SPREAD (CENTS/GAL)				
JUNE 1, 2018	Conway	Change from Start of Week	Mont Belvieu	Last Weel
Ethane	8.63		26.44	
Shrink	17.93		19.34	
Margin	-9.30	6.97%	7.10	19.35%
Propane	75.59		93.72	
Shrink	24.78		26.72	
Margin	50.81	-7.79%	67.00	-2.93%
Normal Butane	85.56		99.55	
Shrink	28.05		30.25	
Margin	57.51	-6.29%	69.30	-3.28%
Isobutane	109.16		157.25	
Shrink	26.94		29.05	
Margin	82.22	-1.48%	128.20	13.94%
Pentane+	142.63		158.31	
Shrink	30.00		32.35	
Margin	112.63	-4.38%	125.96	-4.09%
NGL \$/Bbl	27.50	-1.64%	35.40	0.35%
Shrink	9.88		10.66	
Margin	17.62	-6.27%	24.75	-0.52%
Gas (\$/mmBtu)	2.71	7.85%	2.92	2.43%
Gross Bbl Margin (in cents/gal)	40.41	-6.55%	57.62	-0.49%
NGL Va	lue in \$/mmBtu	(Basket Value)		
Ethane	0.48	8.83%	1.46	6.48%
Propane	2.62	-3.19%	3.25	-1.46%
Normal Butane	0.92	-2.08%	1.08	-1.61%
Isobutane	0.68	0.67%	0.98	11.62%
Pentane+	1.84	-2.04%	2.04	-2.82%
Total Barrel Value in \$/mmbtu	6.54	-1.53%	8.80	0.75%
Margin	3.84	-7.21%	5.89	-0.07%

Price, Shrink of 42-gal NGL barrel based on following: Ethane, 36.5%; Propane, 31.8%; Normal Butane, 11.2%; Isobutane, 6.2%; Pentane+, 14.3%, Fuel, frac, transport costs not included. Conway gas based on Midwest region, Mont Belvieu based on Houston region. Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation.

En*Vantage Inc. had a different take.

"The magnitude of the increase over such a short period of time could indicate that there is an outage of a C4 splitting tower at one of the Mont Belvieu fractionators or that at isomerization unit is down at either Enterprise's Mont Belvieu isomerization complex or at one of the major refineries on the Gulf Coast," the analysts speculated in a recent report.

Antonio Spurs knocked off the Miami Heat in five games. The hypothetical NGL barrel at Mont Belvieu, Texas, that week was \$51.27. This week's barrel price of \$35.40 marks the second straight week of highs for 2018.

Which begs the obvious question on the minds of all who carefully track NGL: What were prices the last time LeBron James *did not* play in the league championship series? Place your bar bets, folks, and I'll consult the LeBron-O-

Meter.

In the first half of June 2010 (yes, it's been that long) when the Los Angeles Lakers knocked off the Boston Celtics, the Mont Belvieu hypothetical barrel was between \$44 and \$45, or about 20%



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above where it is now. Ethane was priced at 53.6 cents/gal, or more than double this week's price.

Natural gas prices that month averaged \$4.79 per million Btu (MMBtu), a healthy 64% higher than Henry Hub's average \$2.92/MMBtu last week. And LeBron's field-goal accuracy that year was 50.3%, compared to this season's 54.2%.

But back to isobutane: in the last seven weeks, the Mont Belvieu price has soared 81.3%. In the past week, isobutane's Mont Belvieu margin widened by almost 14%. A recent report by OPIS attributed the jump to short covering, refinery upsets and high alkylate prices because the octane market is tight.

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Corpus Christi's Heyday Looms

All that crude and all those petroleum products have to go somewhere, now that the U.S. is a key exporter. But they need a way to get there, and Texas' Port of Corpus Christi (PCC) is undergoing change and appears to be the next heralded spot for oil, product and NGL exports.

As excitement has only grown since the country lifted the crude export ban, it could be said that as a matter of course, widening the Port of Corpus Christi's ship channel is a project that is a natural outgrowth of the original late-2015 policy change by President Obama.

Jarl Pedersen, chief commercial officer of the Port of Corpus Christi, has advocated in recent months for the ship channel's expansion. It was in early October 2017 that the Port of Corpus Christi Authority and the U.S. Army Corps of Engineers (USACE) first agreed to deepen and widen the Corpus Christi Ship Channel.

-ERIN PEDIGO | HART ENERGY

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