



January 28, 2019

Covering the Week of January 18 to January 24, 2019

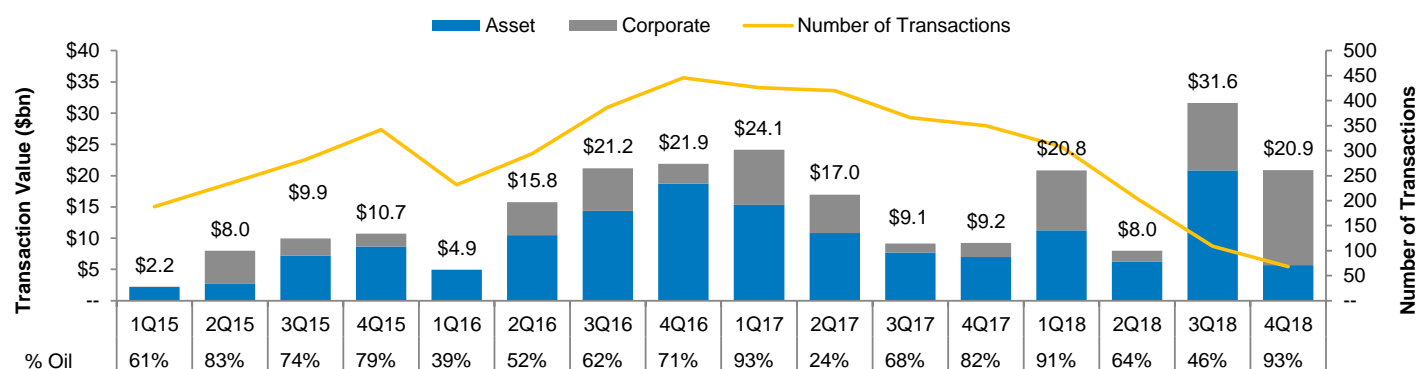
Week in Review

- PetroShare Corp announced that it entered into a definitive agreement to sell its non-operated Wattenberg Field interests for \$16.5 million
- EIA forecasted U.S. energy independence by 2020 as oil production rises through mid-2020s

Key Industry Indicators

Indicator	Current Value	Week's Change	% Change	Direction
Prompt Oil Price (\$/bbl)	\$53.13	\$1.06	2.0%	↑
Prompt Gas Price (\$/mmbtu)	\$3.10	(\$0.31)	(9.1%)	↓
Wkly Trans. Value (\$mm)	\$19	(\$12)	(38%)	↓
Wkly Trans. Count	4	--	--	—
US Rig Count	1,059	9	0.9%	↑
US Oil Prod'n (mmbbl/d)	11.9	--	--	—
US Gas Prod'n (bcf/d) ⁽¹⁾	105.4	--	--	—
US Oil Storage (mmbbl)	445.0	8.0	1.8%	↑
US Gas Storage (tcf)	2.4	(0.2)	(6.4%)	↓

Quarterly Deal Activity



All references to last week in the comments below are through Thursday

Commodities

- Oil ended last week up. WTI held onto gains despite a large increase to American crude inventories. Total crude stockpiles were up 7.97 million barrels, along with gasoline which increased by 4.05 million barrels. The larger than expected crude gains were largely driven by negative trade flow impacts (exports fell by over 0.9 million week over week) and lower refinery runs. The near-term contract closed up \$1.06, or 2.0%, at \$53.13
- Natural gas ended last week down significantly as the snowstorm did not materialize as expected for certain parts of the East, and weather warmed up causing demand losses. The EIA reported a slightly larger than expected 163 Bcf withdrawal from storage. The near-term contract closed down \$0.31, or 9.1%, at \$3.10

Equity Markets

- S&P E&P⁽²⁾ underperformed last week (3.2%) vs. SPX⁽²⁾ 0.2%
- The major U.S. equity indexes finished mostly up last week. Consumer discretionary, consumer staples, financials, industrials, real estate, and tech all finished up, while health care and materials finished down

Debt Markets

- Nine issuers priced nine tranches for \$7.75 billion in proceeds
- U.S. high yield funds reported an outflow of \$264 million
- ETFs accounted for \$365 million of the outflow, while funds reported an inflow of \$101 million
- High yield index yield was 7.08%; high yield energy index yield was 8.46%

Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, EIA, PLS

Note: Current quarter's data is through the week covered by this issue.

1. EIA U.S. natural gas gross withdrawals and production reported monthly as of October 2018.

2. S&P E&P = S&P Oil & Gas E&P Select Industry, SPX = S&P 500 Index.

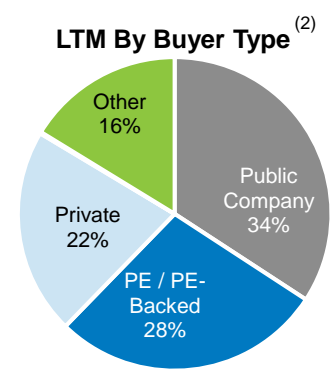
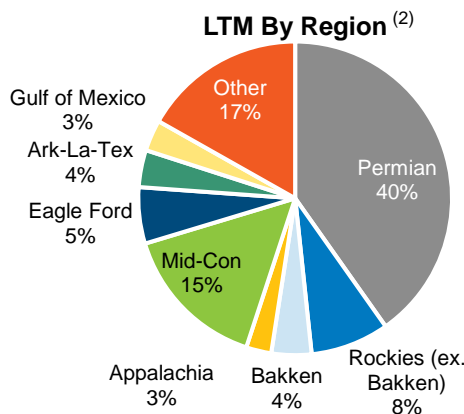
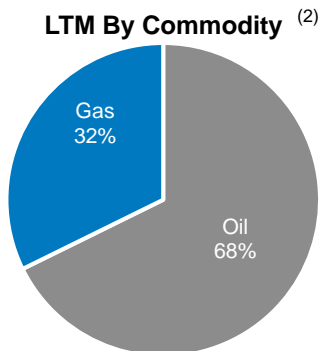


January 28, 2019

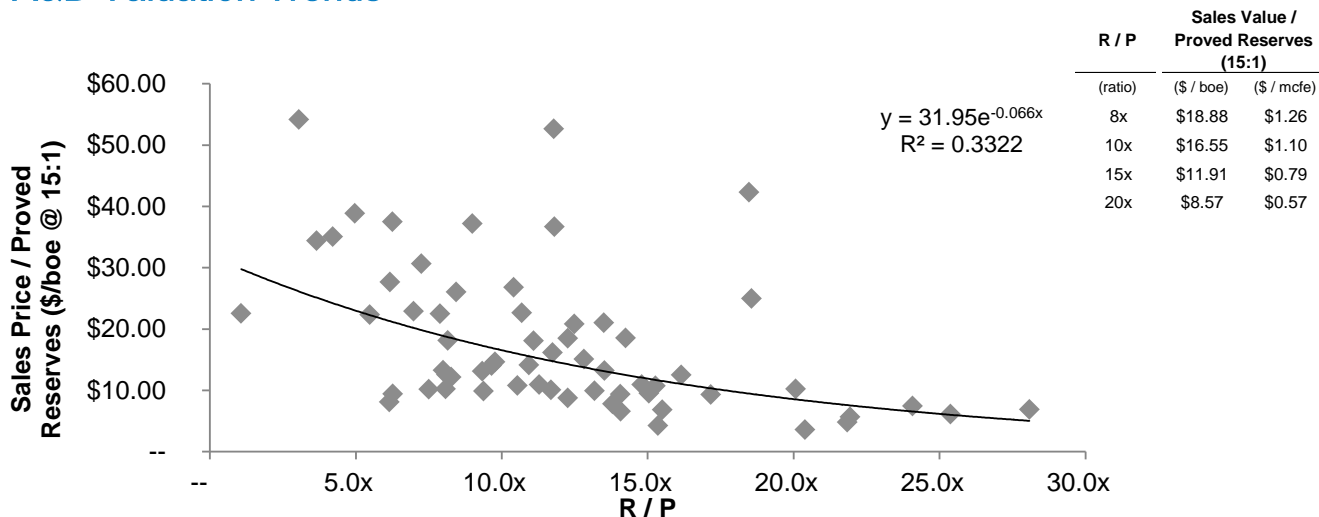
The 10 Most Recent Asset Transactions Over \$20 Million

Ann'd Date	Buyer	Seller	Area	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre)
16-Jan-19	Talos Energy Inc	Samson Energy Co LLC	Gulf of Mexico	Non-op Gulf of Mexico working interest	\$30	\$13.45	\$17,939	n.a.
08-Jan-19	Undisclosed Buyer	MCM Energy Partners LLC	Permian	Midland Basin assets	\$20	n.a.	n.a.	n.a.
21-Dec-18	Pantheon Resources Plc	Great Bear Petroleum LLC	Alaska	250,000 leased acres in the North Slope	\$49	n.a.	n.a.	\$196
19-Dec-18	Comstock	Shelby Shale LLC	Ark-La-Tex	6,023 net acres in Haynesville	\$21	n.a.	n.a.	\$3,404
17-Dec-18	Alliance Resource Partners	Dale Operating Co	Multi-Region	42,000 net royalty acres	\$176	n.a.	n.a.	nmf
11-Dec-18	Undisclosed Buyer	Riviera Resources Inc	Mid-Continent	37,000 net acres in the Arkoma Basin	\$68	n.a.	\$17,000	\$1,838
21-Nov-18	Kimbell Royalty Partners	Undisclosed Seller	Multi-Region	16,700 net royalty acres	\$108	n.a.	\$90,588	nmf
19-Nov-18	Lonestar Resources Inc	Sabine Oil & Gas Corp	Eagle Ford	2,706 net acres in Eagle Ford	\$39	\$2.98	\$48,375	\$14,302
19-Nov-18	Aethon III	QEP Resources Inc	Ark-La-Tex	49,700 net acres in Haynesville	\$735	\$4.60	\$14,848	\$14,789
07-Nov-18	Vantage Energy Acq. Corp	QEP Resources Inc	Bakken	102,800 net acres in Williston Basin	\$1,725	n.a.	\$37,500	\$16,780

Blue = BMO provided transaction advisory services Green = BMO provided acquisition financing or related services
Purple = BMO provided both transaction advisory services and acquisition financing or related services



A&D Valuation Trends⁽³⁾



2 Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, PLS

1. Represents total enterprise value.
2. Calculated as percentage of total LTM transaction count (number of transactions, not dollar value).
3. 62 transactions from January 2015 to 2018 with transaction value >\$20mm. Adjusted for changes in price outlooks. Recalculated boe reserves are on a 15:1 (gas:oil) basis. Acreage transactions excluded by using deals with PDP of >= 40% of total proved.



January 28, 2019

Select Significant Deals on the Market



A&D Headlines

- [PetroShare Corp Agrees to Sell Its Non-operated Wattenberg Field Interests](#)
- [Aramco Ready to Pour Billions in U.S. Natural Gas](#)

Industry Headlines

- [Venezuelan Unrest Shoves Aside U.S. Supply Surge as Oil Climbs](#)
- [Oil Rises on Expectations of Market Balance, Slower Shale Growth](#)
- [Confident Oil Industry Set to Ratchet Up Spending in 2019](#)
- [Water Is Almost as Precious as Oil in the Permian Basin](#)
- [Texas Oil Production Strong Despite Recent Price Drop](#)
- [White House Eyes Energy Push as Russia Strategy](#)
- [ExxonMobil Isn't Taking Together Louisiana's Economic Hate Campaign Lying Down](#)
- [Connecticut Trade Group Calls For an Immediate Halt to Natural Gas Expansion](#)

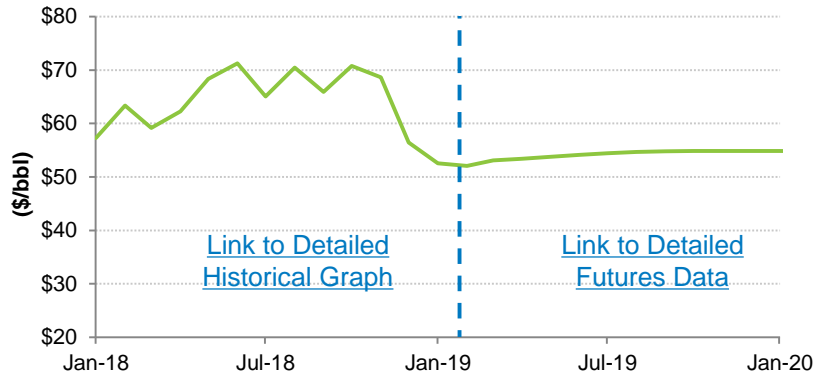
(Click headline to link to the full article)



January 28, 2019

Commodity Prices

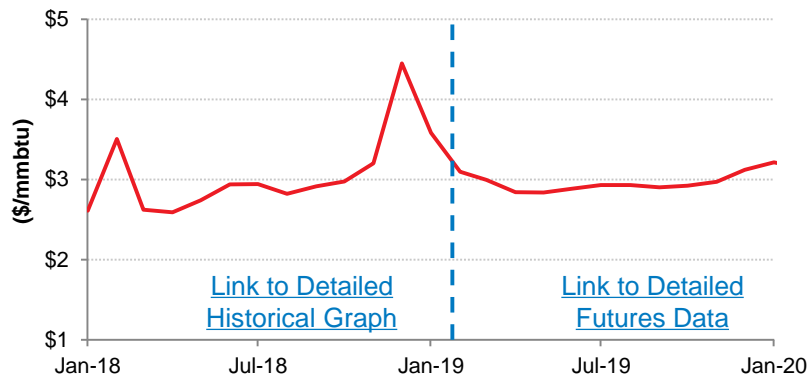
WTI OIL (HISTORICAL / FORECAST)



NYMEX WTI Futures as of 24-Jan-19 Close (\$/bbl)

Period ⁽¹⁾	Current	Last Wk.	6 Mo. Ago	1 Yr. Ago
12 Mo. Strip	\$54.39	\$53.65	\$65.82	\$62.85
2019	\$54.30	\$53.58	\$64.58	\$59.01
2020	\$54.60	\$54.31	\$61.53	\$55.87
2021	\$54.04	\$54.02	\$59.02	\$54.17
2022	\$53.72	\$53.85	\$57.18	\$53.37
2023	\$53.70	\$53.96	\$55.89	\$53.28

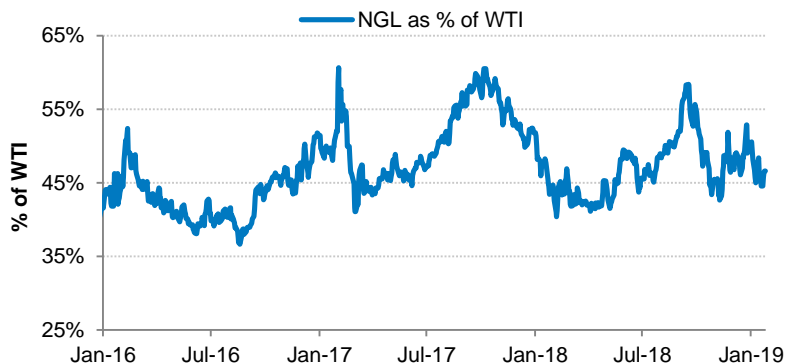
HENRY HUB NATURAL GAS (HISTORICAL / FORECAST)



NYMEX Gas Futures as of 24-Jan-19 Close (\$/mmbtu)

Period ⁽¹⁾	Current	Last Wk.	6 Mo. Ago	1 Yr. Ago
12 Mo. Strip	\$2.97	\$2.99	\$2.76	\$2.98
2019	\$2.95	\$2.97	\$2.71	\$2.83
2020	\$2.76	\$2.73	\$2.62	\$2.81
2021	\$2.64	\$2.64	\$2.58	\$2.87
2022	\$2.82	\$2.82	\$2.72	\$3.02
2023	\$2.82	\$2.82	\$2.72	\$3.02

NGL PRICING⁽²⁾



Historical Prices as of 24-Jan-19 Close (\$/gal)

NGLs	Current	Last Wk.	6 Mo. Ago	1 Yr. Ago
Ethane	\$0.34	\$0.30	\$0.35	\$0.29
Propane	\$0.68	\$0.68	\$0.95	\$0.86
Butane	\$0.70	\$0.66	\$1.02	\$0.87
Iso-butane	\$0.83	\$0.79	\$1.21	\$1.05
Pentane+	\$1.03	\$1.06	\$1.50	\$1.43

Source: BMO Commodity Products Group, Bloomberg, FactSet

1. Future prices are calendar year average unless stated otherwise.
2. Assumes typical Gulf Coast barrel composition.

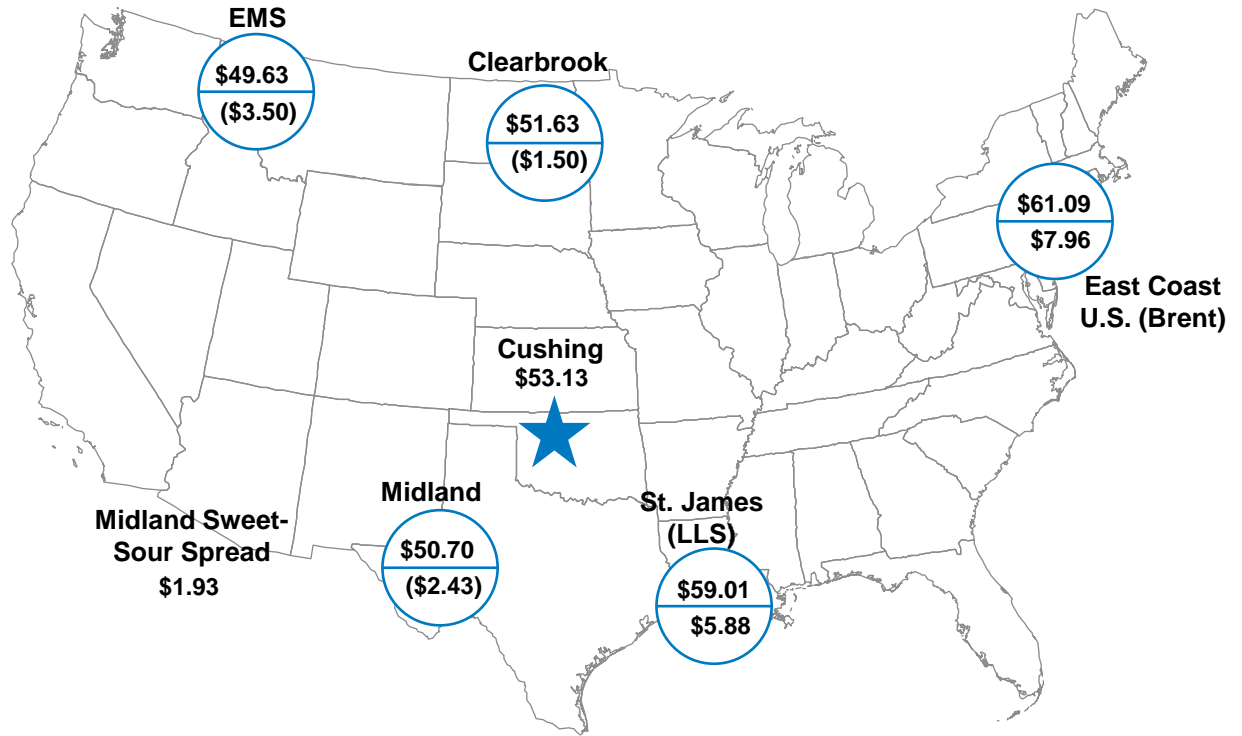


January 28, 2019

Commodity Prices (cont'd)

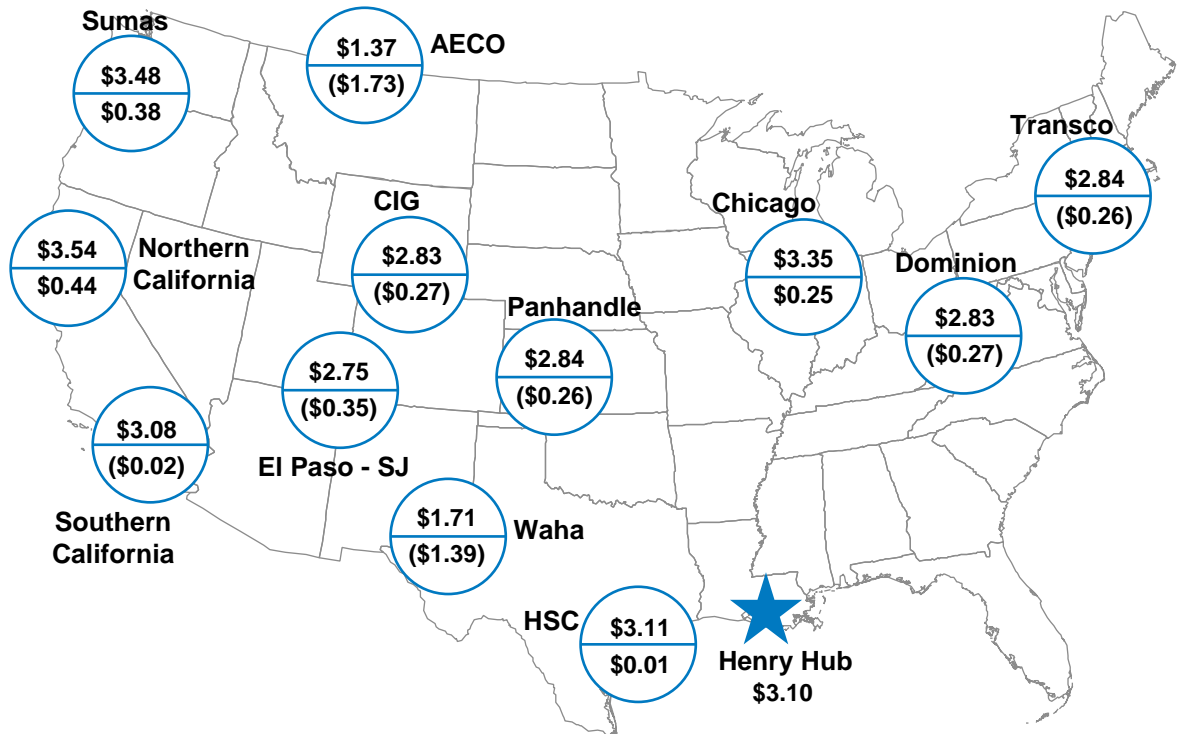
OIL PRICING & DIFFERENTIALS TO CUSHING WTI (\$ / BBL) – AS OF 24-JAN-19

Legend



NATURAL GAS PRICING & DIFFERENTIALS TO HENRY HUB (\$ / MMBTU) – AS OF 24-JAN-19

Legend



Source: BMO Commodity Products Group, Bloomberg

Note: Prices and differentials are for prompt month futures except for Clearbrook which is based on spot prices.



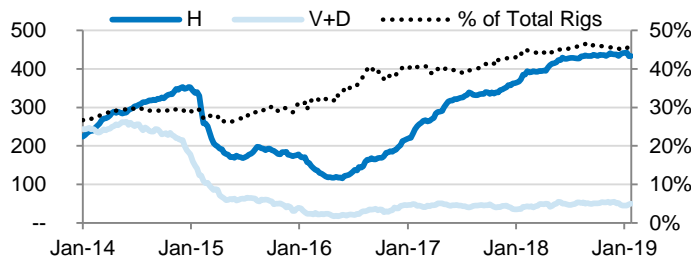
January 28, 2019

Permian Snapshot

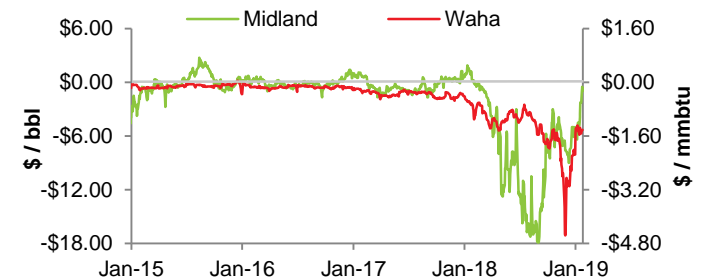
Item	Value	Wkly Change	Last Week
Rig Count	484	↑ 3	481
Permitting Activity	152	↓ (234)	386

Item	Value	Wkly Change	Last Week
Oil Differential	(\$0.50)	↑ \$3.05	(\$3.55)
Gas Differential	(\$1.42)	↑ \$0.05	(\$1.47)

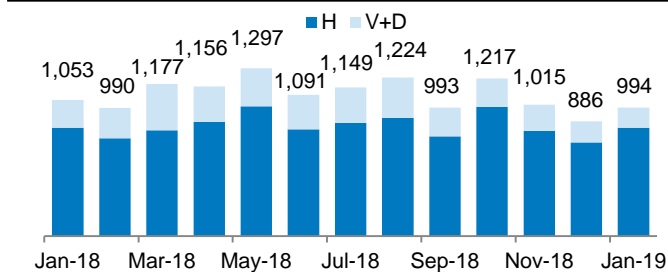
RIG COUNT



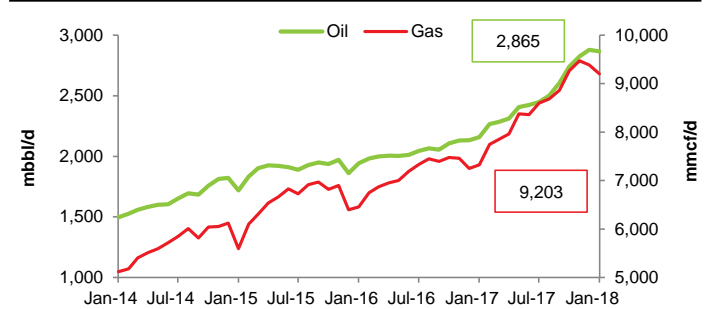
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

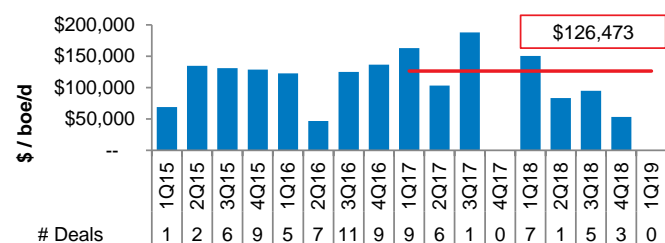


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

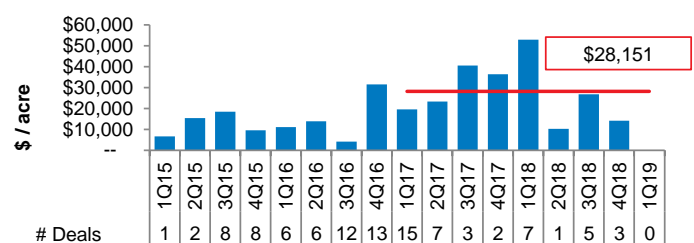
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
08-Jan-19	Undisclosed Buyer	MCM Energy Partners LLC	Midland Basin assets	\$20	n.a.	n.a.	n.a.
06-Nov-18	Diamondback Energy	ExL Pet.; EnergyQuest	3,646 net acres in Midland Basin	\$313	n.a.	\$89,286	\$85,710
05-Nov-18	Centennial Resource Dev.	Undisclosed Seller	820 net acres in Delaware Basin	\$26	n.a.	n.a.	\$31,707
01-Nov-18	Undisclosed Buyer	Parsley Energy LP	11,850 net acres in Midland Basin	\$170	n.a.	\$141,667	\$14,346
30-Sep-18	Energen	Undisclosed Seller	1,700 net acres in Delaware Basin	\$38	n.a.	n.a.	\$22,235
			Mean	\$113	n.a.	\$115,476	\$38,500
			Median	\$38	n.a.	\$115,476	\$26,971

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TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

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2. \$/acre multiple not adjusted for value associated with production.
3. Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
4. Production valued at \$45,000/boepd in 2014, \$30,000/boepd in 2015, \$35,000/boepd in 2016 & 2017, and \$40,000/boepd in 2018 & 2019.



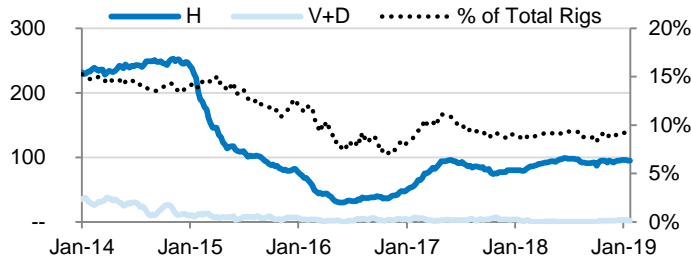
January 28, 2019

Eagle Ford Snapshot

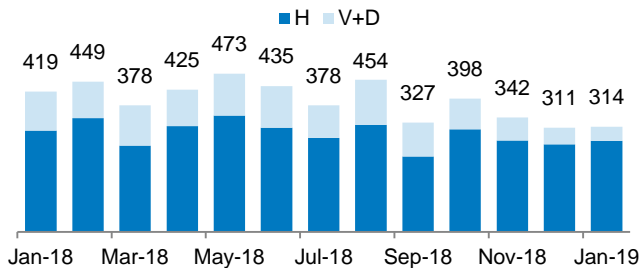
Item	Value	Wkly Change	Last Week
Rig Count	97	█	-- 97
Permitting Activity	78	↓	(41) 119

Item	Value	Wkly Change	Last Week
Oil Differential	\$8.20	↑	\$0.90 \$7.30
Gas Differential	(\$0.03)	↓	(\$0.09) \$0.06

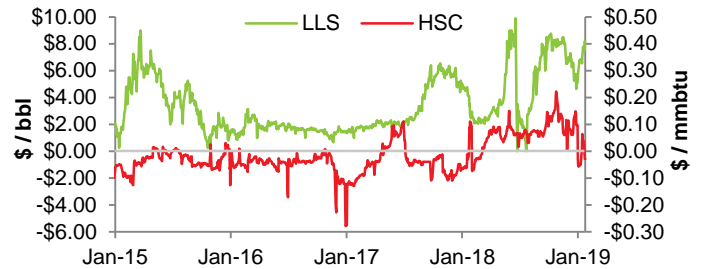
RIG COUNT



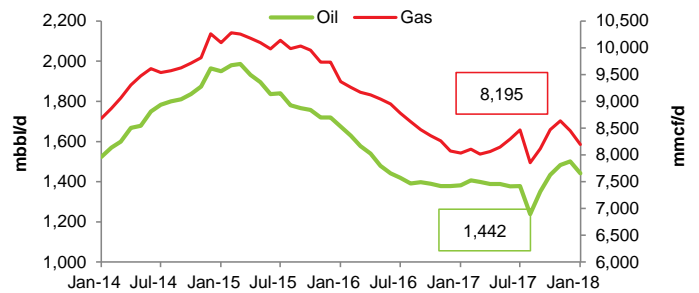
PERMITTING ACTIVITY BY MONTH



DIFFERENTIALS



GROSS PRODUCTION

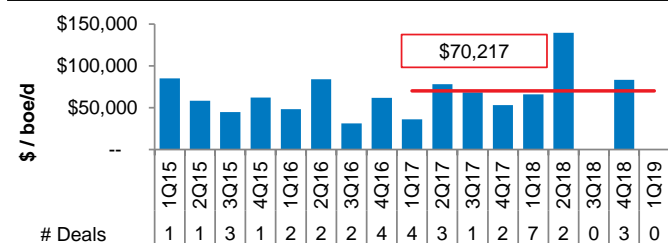


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

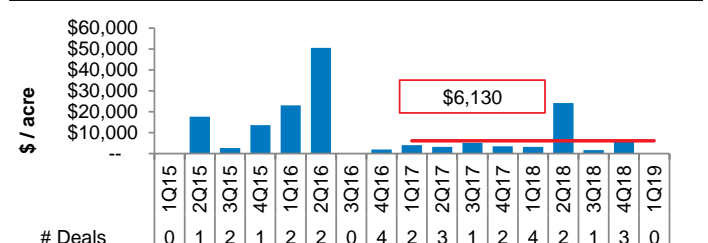
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
19-Nov-18	Lonestar Resources Inc	Sabine Oil & Gas Corp	2,706 net acres in Eagle Ford	\$39	\$2.98	\$48,375	\$14,302
20-Sep-18	WildHorse	Undisclosed Seller	20,305 net Eagle Ford/Austin Chalk acres	\$35	n.a.	n.a.	\$1,743
07-Sep-18	Undisclosed Buyer	Viking Minerals LLC	1,191 net royalty acres in Eagle Ford	\$28	n.a.	n.a.	nmf
31-Jul-18	EP Energy Corp	Undisclosed Seller	Additional working interests in Eagle Ford	\$31	n.a.	n.a.	n.a.
26-Jul-18	BP	BHP Billiton	Permian, Eagle Ford, and Haynesville	\$10,500	n.a.	n.a.	n.a.
			Mean	\$2,127	\$2.98	\$48,375	\$8,022
			Median	\$35	\$2.98	\$48,375	\$8,022

Blue = BMO provided transaction advisory services Green = BMO provided acquisition financing or related services
Purple = BMO provided both transaction advisory services and acquisition financing or related services

TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

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- \$/acre multiple not adjusted for value associated with production.
- Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
- Production valued at \$45,000/boepd in 2014, \$30,000/boepd in 2015, \$35,000/boepd in 2016 & 2017, and \$40,000/boepd in 2018 & 2019.



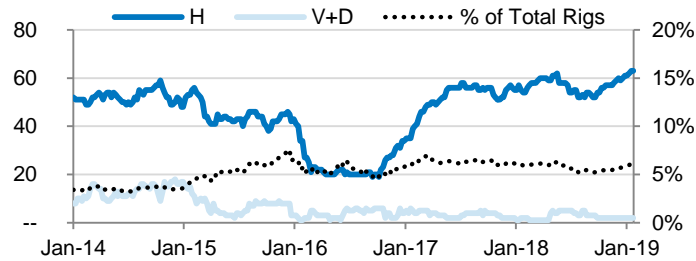
January 28, 2019

Ark-La-Tex Snapshot

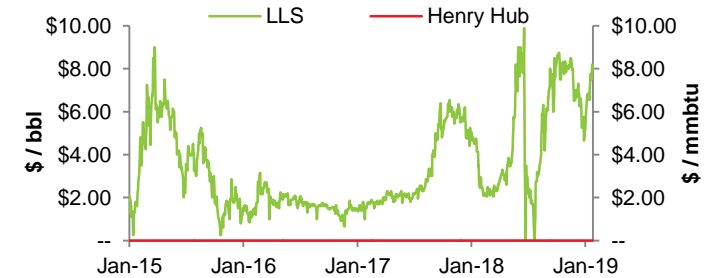
Item	Value	Wkly Change	Last Week
Rig Count	65	█ --	65
Permitting Activity	18	█ ↑ 4	14

Item	Value	Wkly Change	Last Week
Oil Differential	\$8.20	█ ↑ \$0.90	\$7.30
Gas Differential	--	█ --	--

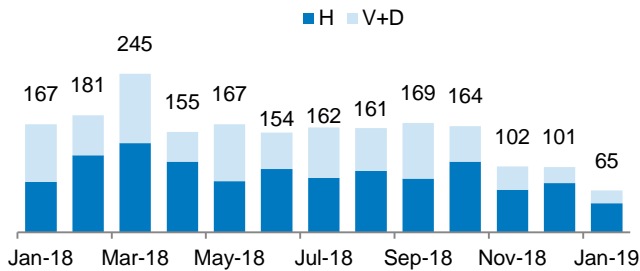
RIG COUNT



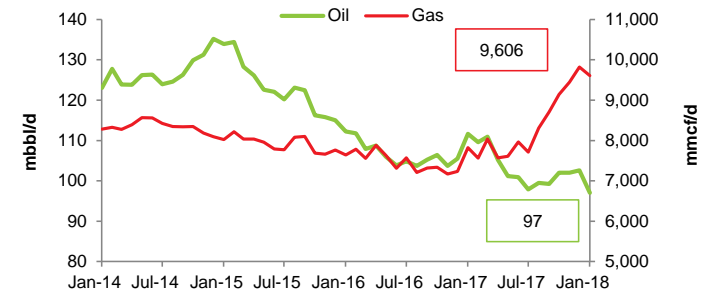
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

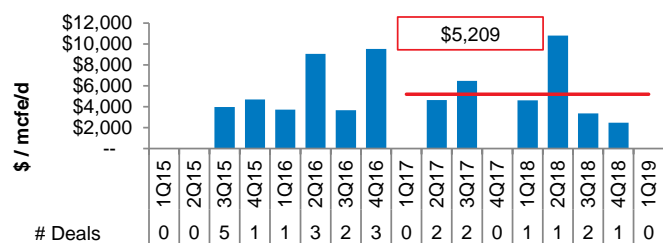


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

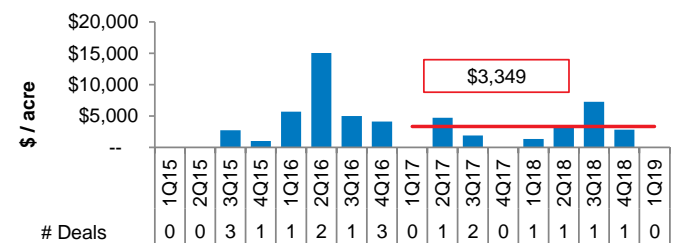
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/mcf)	Prod. Multiple (\$/mcf/d)	Net Acres (\$/acre) ⁽²⁾
19-Dec-18	Comstock	Shelby Shale LLC	6,023 net acres in Haynesville	\$21	n.a.	n.a.	\$3,404
19-Nov-18	Aethon III	QEP Resources Inc	49,700 net acres in Haynesville	\$735	\$0.77	\$2,475	\$14,789
05-Sep-18	Viking Energy Group	Multiple Sellers	Texas and Louisiana assets	\$100	n.a.	n.a.	n.a.
05-Sep-18	Equinor	Texegy LLC	60,000 net acres in Austin Chalk	\$75	n.a.	n.a.	\$1,250
06-Aug-18	Mission Creek Resources	Bonanza Creek Energy Inc	11,132 net acres in the Cotton Valley	\$117	\$1.69	\$6,500	\$10,510
				Mean	\$210	\$1.23	\$4,487
				Median	\$100	\$1.23	\$6,957

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TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



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- \$/acre multiple not adjusted for value associated with production.
- Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
- Production valued at \$3,000/mcfepd in 2014, and \$2,000/mcfepd in 2015, 2016, 2017, 2018, and 2019.

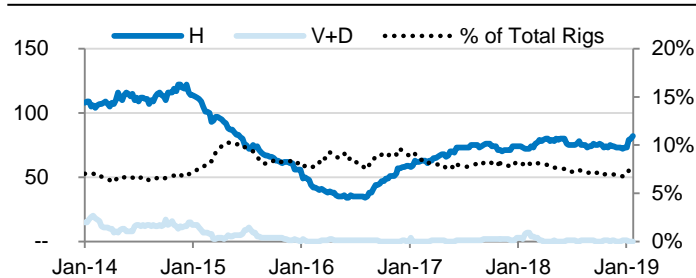


January 28, 2019

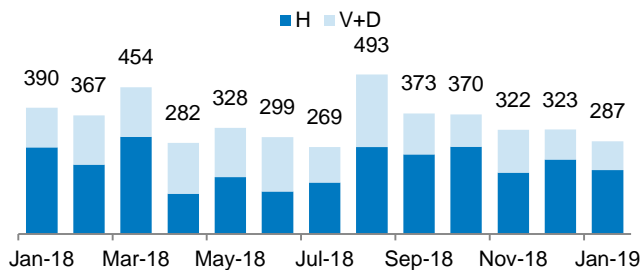
Appalachia Snapshot

Item	Value	Wkly Change	Last Week
Rig Count	82	↑	80
Permitting Activity	33	↓ (84)	117

RIG COUNT

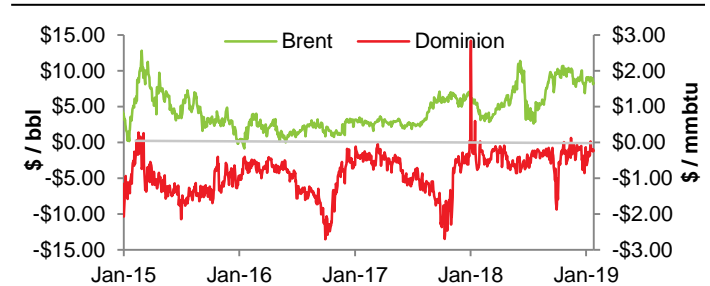


PERMITTING ACTIVITY BY MONTH

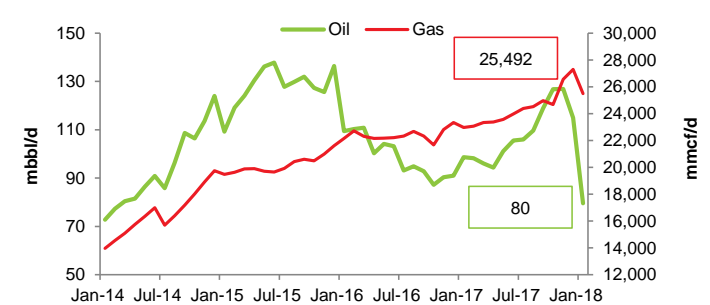


Item	Value	Wkly Change	Last Week
Oil Differential	\$8.11	↓ (\$1.00)	\$9.11
Gas Differential	(\$0.20)	↓ (\$0.11)	(\$0.09)

DIFFERENTIALS



GROSS PRODUCTION

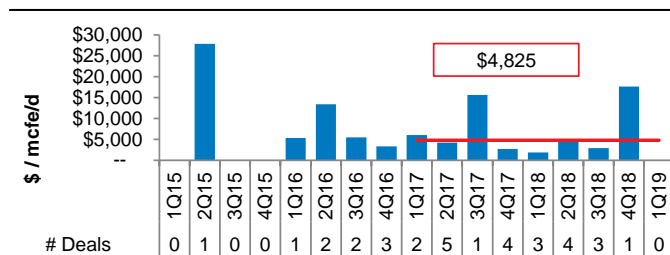


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

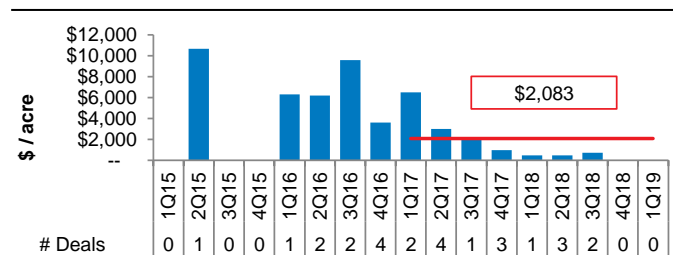
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾	Proved Multiple	Prod. Multiple	Net Acres	
				(\$mm)	(\$/mcf)	(\$/mcf/d)	(\$/acre) ⁽²⁾	
15-Oct-18	Undisclosed Buyer	Range Resources Corp	Overriding royalty interests in Appalachia	\$300	n.a.	\$17,649	n/mf	
27-Aug-18	PennEnergy Resources	Rex Energy Corp	141,026 net acres in PA and OH	\$601	\$0.58	\$2,781	\$4,258	
26-Jul-18	Encino Acquisition Partners	Chesapeake	938,000 net acres in the Utica	\$1,900	\$0.66	\$2,960	\$2,026	
29-Jun-18	Ascent Resources LLC	Utica Minerals; Undisclosed	35,400 acres in the Utica	\$700	n.a.	\$15,217	\$19,774	
29-Jun-18	Ascent Resources LLC	CNX Resources; Hess	78,000 acres in the Utica	\$800	n.a.	\$4,762	\$10,256	
				Mean	\$860	\$0.62	\$8,674	\$9,079
				Median	\$700	\$0.62	\$4,762	\$7,257

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Purple = BMO provided both transaction advisory services and acquisition financing or related services

TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

Note: Current quarter's data is through the week covered by this issue.

- Represents total enterprise value. Excludes transactions with deal value <\$20 million.
- \$/acre multiple not adjusted for value associated with production.
- Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
- Production valued at \$3,000/mcfepd in 2014, and \$2,000/mcfepd in 2015, 2016, 2017, 2018, and 2019.



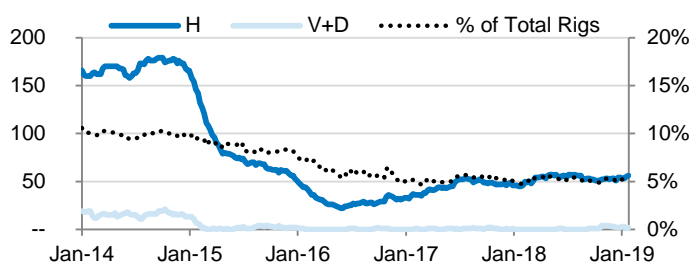
January 28, 2019

Bakken Snapshot

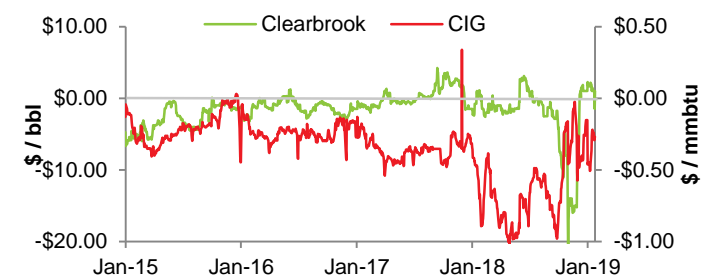
Item	Value	Wkly Change	Last Week
Rig Count	58	↑ 2	56
Permitting Activity	11	↓ (22)	33

Item	Value	Wkly Change	Last Week
Oil Differential	(\$1.50)	↓ (\$2.75)	\$1.25
Gas Differential	(\$0.27)	↓ (\$0.05)	(\$0.22)

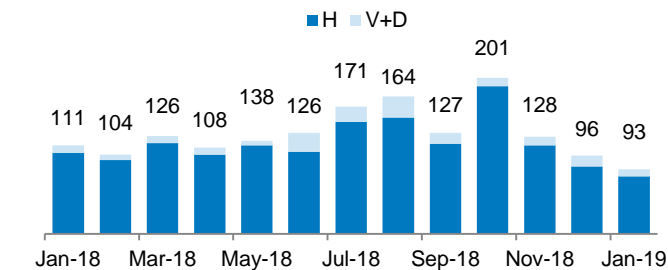
RIG COUNT



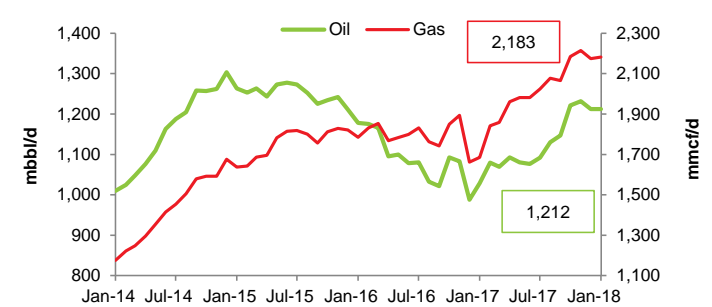
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

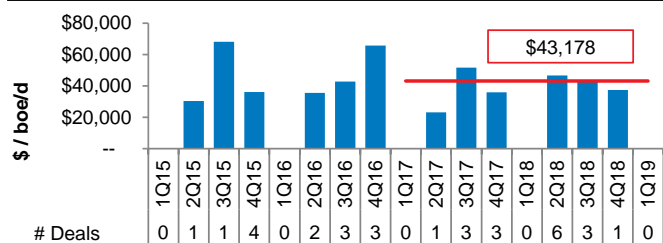


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

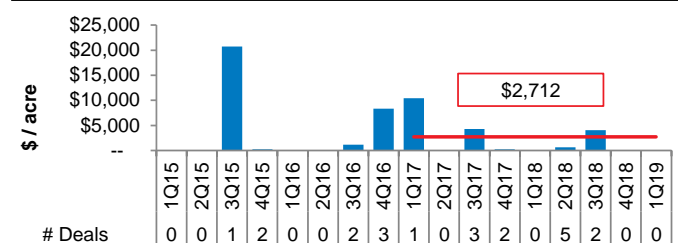
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
07-Nov-18	Vantage Energy Acq. Corp	QEP Resources Inc	102,800 net acres in Williston Basin	\$1,725	n.a.	\$37,500	\$16,780
31-Jul-18	Northern Oil and Gas	W Energy Partners	10,600 net acres in Williston Basin	\$288	n.a.	\$42,708	\$27,196
18-Jul-18	Northern Oil and Gas	Pivotal Petroleum Partners LP	Producing assets in Williston Basin	\$152	n.a.	\$37,032	n.a.
12-Jul-18	PetroShale Inc	Slawson Exploration Co	1,981 net acres in Williston Basin	\$55	\$6.04	\$100,000	\$27,764
06-Jul-18	Energy Resources 12 LP	Bruin E&P Partners LLC	2.8% non-operated WI in Bakken assets	\$83	n.a.	n.a.	n.a.
			Mean	\$461	\$6.04	\$54,310	\$23,913
			Median	\$152	\$6.04	\$40,104	\$27,196

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TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

Note: Current quarter's data is through the week covered by this issue.

1. Represents total enterprise value. Excludes transactions with deal value <\$20 million.
2. \$/acre multiple not adjusted for value associated with production.
3. Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
4. Production valued at \$45,000/boepd in 2014, \$30,000/boepd in 2015, \$35,000/boepd in 2016 & 2017, and \$40,000/boepd in 2018 & 2019.



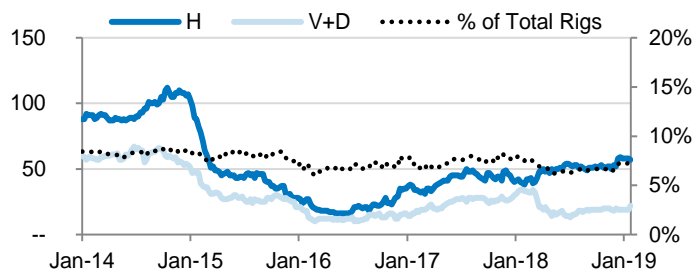
January 28, 2019

Rockies (excl. Bakken) Snapshot

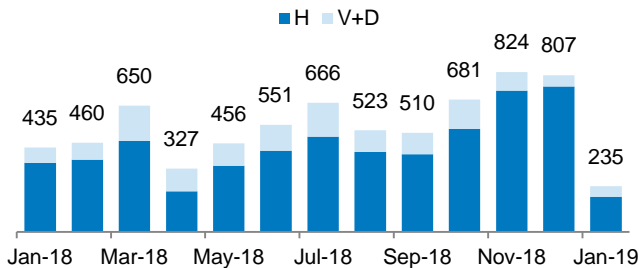
Item	Value	Wkly Change	Last Week
Rig Count	79	↑ 2	77
Permitting Activity	7	↓ (74)	81

Item	Value	Wkly Change	Last Week
Oil Differential	(\$1.50)	↓ (\$2.75)	\$1.25
Gas Differential	(\$0.27)	↓ (\$0.05)	(\$0.22)

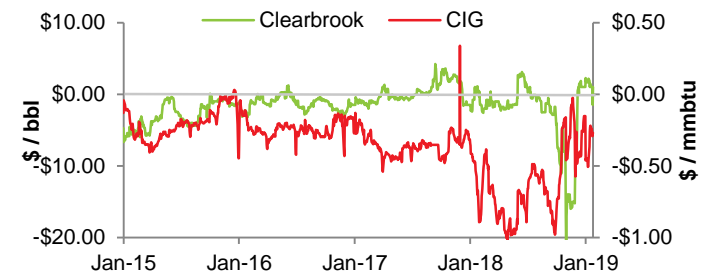
RIG COUNT



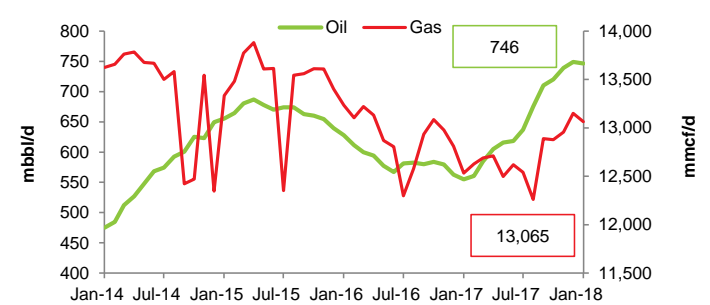
PERMITTING ACTIVITY BY MONTH



DIFFERENTIALS



GROSS PRODUCTION

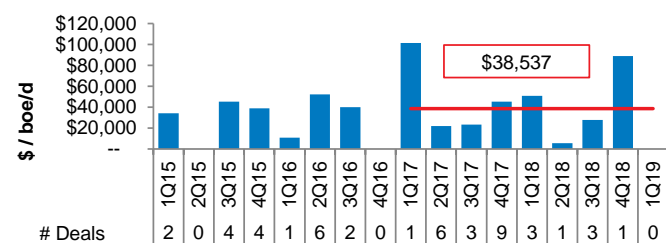


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

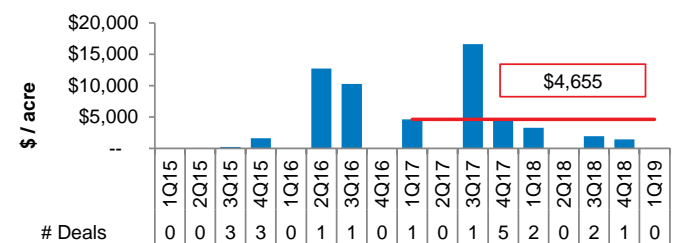
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾	Proved Multiple	Prod. Multiple	Net Acres	
				(\$mm)	(\$/boe)	(\$/boe/d)	(\$/acre) ⁽²⁾	
01-Oct-18	DJR Energy LLC	EnCana	182,000 net acres in San Juan Basin	\$480	n.a.	\$88,889	\$2,637	
28-Aug-18	Vermilion Energy Inc	Massif Oil & Gas LLC	55,000 acres in Powder River Basin	\$150	n.a.	\$56,604	\$2,727	
28-Aug-18	Rebellion Energy II LLC	Liberty Resources II LLC	19,000 net acres in Powder River Basin	\$100	n.a.	n.a.	\$5,263	
09-Aug-18	Undisclosed Buyer	Ultra Petroleum	~8,000 net acres in the Uinta	\$75	n.a.	\$37,500	\$9,375	
10-Jul-18	Middle Fork Energy Part.	QEP Resources Inc	~230,000 net acres in the Uinta	\$155	\$1.54	\$17,222	\$674	
				Mean	\$192	\$1.54	\$50,054	\$4,135
				Median	\$150	\$1.54	\$47,052	\$2,727

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TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

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- Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
- Production valued at \$45,000/boepd in 2014, \$30,000/boepd in 2015, \$35,000/boepd in 2016 & 2017, and \$40,000/boepd in 2018 & 2019.



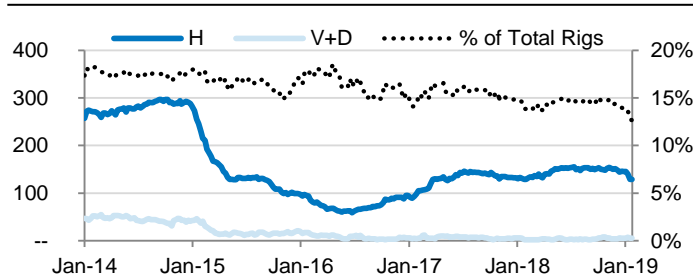
January 28, 2019

Mid-Continent Snapshot

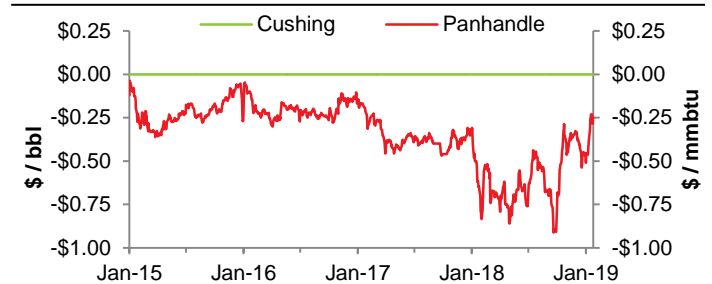
Item	Value	Wkly Change	Last Week
Rig Count	134	█ --	134
Permitting Activity	39	█ (48)	87

Item	Value	Wkly Change	Last Week
Oil Differential	--	█ --	--
Gas Differential	(\$0.25)	█ (\$0.01)	(\$0.25)

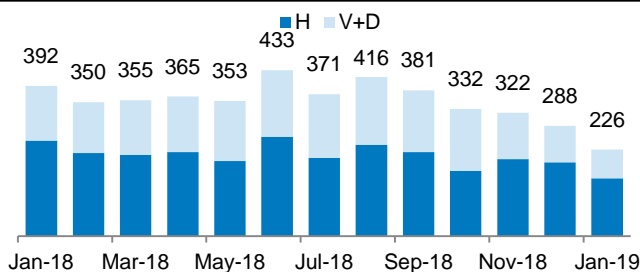
RIG COUNT



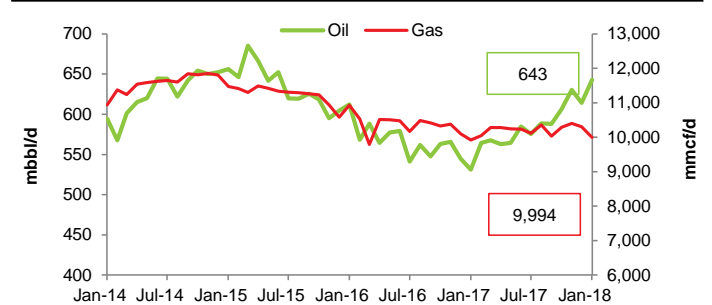
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

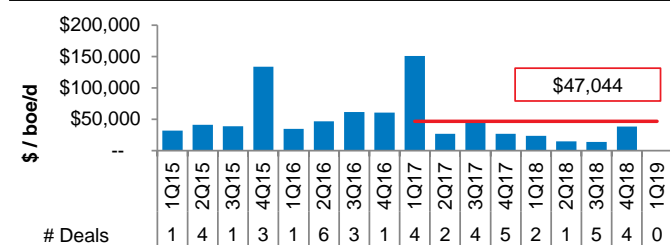


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

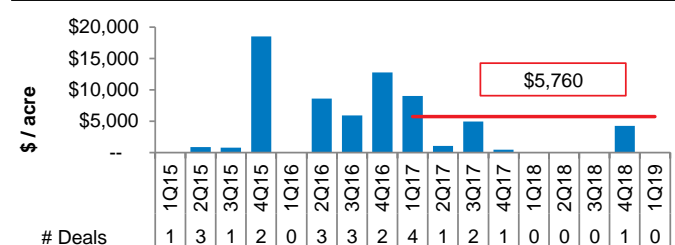
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾	
11-Dec-18	Undisclosed Buyer	Riviera Resources Inc	37,000 net acres in the Arkoma Basin	\$68	n.a.	\$17,000	1,838	
02-Nov-18	SandRidge Energy	Undisclosed Seller	Mississippi Lime and NW STACK assets	\$25	n.a.	\$6,649	n.a.	
31-Oct-18	Casillas Petroleum Corp	Sheridan Production Partners	29,600 net acres in SCOOP assets	\$260	n.a.	\$78,078	\$8,784	
04-Sep-18	Flywheel Energy LLC	Southwestern Energy	915,000 net acres in Fayetteville Shale	\$1,865	\$3.04	\$15,629	\$2,038	
06-Aug-18	Franco Nevada Corp	Continental Resources Inc	Mineral rights JV in the SCOOP/STACK	\$220	n.a.	n.a.	nmf	
				Mean	\$488	\$3.04	\$29,339	\$4,220
				Median	\$220	\$3.04	\$16,314	\$2,038

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TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

Note: Current quarter's data is through the week covered by this issue.

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- Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
- Production valued at \$45,000/boepd in 2014, \$30,000/boepd in 2015, \$35,000/boepd in 2016 & 2017, and \$40,000/boepd in 2018 & 2019.



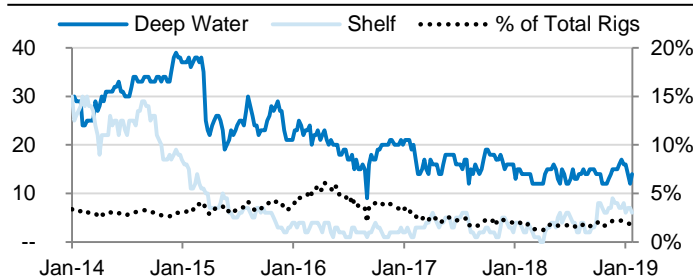
January 28, 2019

Gulf of Mexico Snapshot

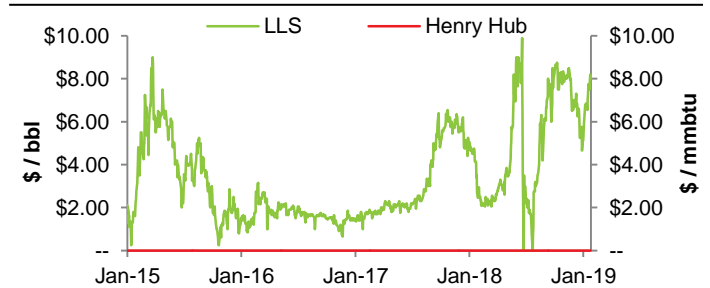
Item	Value	Wkly Change	Last Week
Rig Count	20	↑	19
Permitting Activity	3	↓	5

Item	Value	Wkly Change	Last Week
Oil Differential	\$8.20	↑	\$7.30
Gas Differential	--	—	--

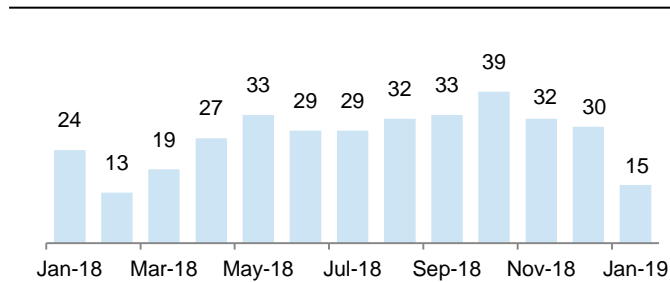
RIG COUNT



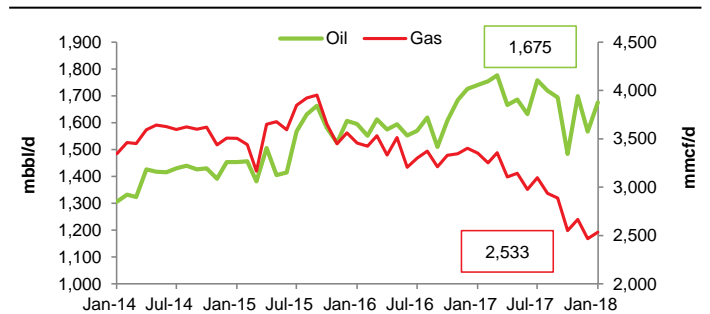
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH⁽¹⁾



GROSS PRODUCTION

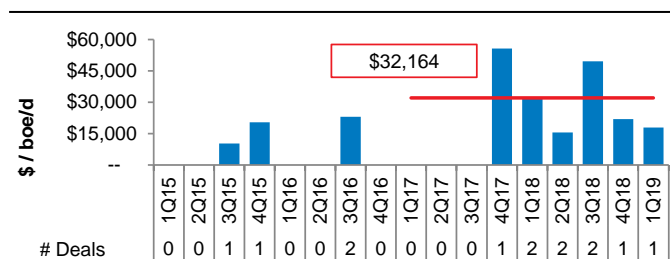


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

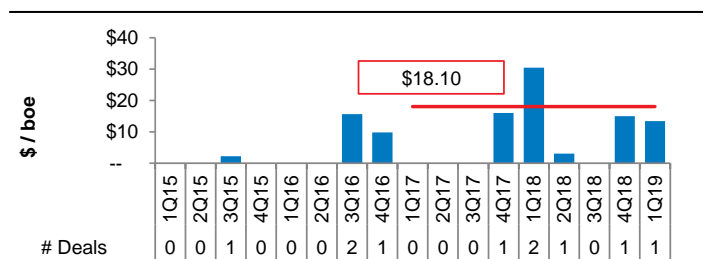
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽²⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽³⁾
16-Jan-19	Talos Energy Inc	Samson Energy Co LLC	Non-op Gulf of Mexico working interest	\$30	\$13.45	\$17,939	n.a.
10-Oct-18	Murphy	Petrobras	Gulf of Mexico joint venture	\$900	\$15.00	\$21,951	n.a.
04-Sep-18	Talos Energy Inc	Whistler Energy II LLC	Leases in Green Canyon federal waters	\$91	n.a.	\$60,667	n.a.
27-Apr-18	Stone Energy	Shell; ExxonMobil; Anadarko	GOM Ram Powell assets	\$234	n.a.	\$38,361	n.a.
28-Mar-18	W&T Offshore	Cobalt International Energy	9.375% non-op WI in the Heidelberg unit	\$31	\$23.92	\$9,345	n.a.
			Mean	\$257	\$17.46	\$29,653	n.a.
			Median	\$91	\$15.00	\$21,951	n.a.

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TRANSACTION PRODUCTION MULTIPLES⁽⁴⁾



TRANSACTION PROVED RESERVE MULTIPLES⁽⁴⁾



Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS

Note: Current quarter's data is through the week covered by this issue.

- Permits include directional and unidentified drilling permits.
- Represents total enterprise value. Excludes transactions with deal value <\$20 million.
- \$/acre multiple not adjusted for value associated with production.
- Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.



January 28, 2019

[Click event to open](#)

Upcoming Industry Events

January 2019

[Jan 31](#) [SPE A&D Symposium](#)

February 2019

[Feb 5-7](#) [SPE Hydraulic Fracturing Technology Conference](#)

[Feb 11-15](#) [NAPE Summit Week](#)

[Feb 12](#) [Women in Energy Luncheon](#)

[Feb 15](#) [ADAM-Houston Monthly Luncheon](#)

[Feb 19](#) [Houston Producers Forum Luncheon](#)

[Feb 19-20](#) [DUG Haynesville \(Shreveport\)](#)

March 2019

[Mar 5](#) [Energy Capital Conference](#)

[Mar 5-7](#) [IADC/SPE Drilling Conference](#)

[Mar 15](#) [ADAM-Houston Monthly Luncheon](#)

[Mar 19](#) [Houston Producers Forum Luncheon](#)

[Mar 26-28](#) [International Petroleum Technology Conference](#)

April 2019

[Apr 8-10](#) [IPAA Oil & Gas Investment Symposium](#)

[Apr 15](#) [DUG Sand \(Fort Worth\)](#)

[Apr 15](#) [DUG Water \(Fort Worth\)](#)

[Apr 15-17](#) [DUG Permian \(Fort Worth\)](#)

[Apr 16](#) [Houston Producers Forum Luncheon](#)

[Apr 19](#) [ADAM-Houston Monthly Luncheon](#)

May 2019

[May 6-9](#) [Offshore Technology Conference](#)

[May 10](#) [Petroleum Resources Economics Conference](#)

[May 13-17](#) [SPE Electric Submersible Pumps Symposium](#)

[May 14-15](#) [DUG Rockies \(Denver\)](#)

[May 14](#) [Houston Producers Forum Luncheon](#)

[May 16](#) [IADC Drilling Onshore Conference & Exhibition](#)

[May 17](#) [ADAM-Houston Monthly Luncheon](#)

June 2019

[Jun 5-6](#) [Midstream Texas Conference & Exhibition](#)

[Jun 18](#) [Houston Producers Forum Luncheon](#)

[Jun 18-20](#) [DUG East \(Pittsburgh\)](#)

[Jun 19-20](#) [IADC World Drilling Conference & Exhibition](#)

[Jun 21](#) [ADAM-Houston Monthly Luncheon](#)

[Jun 24-26](#) [IPAA Midyear Meeting](#)

July 2019

[Jul 16](#) [Houston Producers Forum Luncheon](#)

[Jul 19](#) [ADAM-Houston Monthly Luncheon](#)

August 2019

[Aug 16](#) [ADAM-Houston Monthly Luncheon](#)

[Aug 20](#) [IPAA Oil & Gas Overview Course](#)

[Aug 20](#) [Houston Producers Forum Luncheon](#)

[Aug 21-22](#) [Summer NAPE](#)

September 2019

[Sep 17](#) [Houston Producers Forum Luncheon](#)

[Sep 20](#) [ADAM-Houston Monthly Luncheon](#)

[Sep 24-26](#) [DUG Eagle Ford \(San Antonio\)](#)

[Sep 30-Oct 2](#) [SPE Annual Technical Conference and Exhibition](#)

October 2019

[Oct 9](#) [IPAA Leaders in Industry Luncheon](#)

[Oct 15](#) [Houston Producers Forum Luncheon](#)

[Oct 18](#) [ADAM-Houston Monthly Luncheon](#)

[Oct 22-23](#) [A&D Strategies and Opportunities Conference](#)

November 2019

[Nov 4-6](#) [Executive Oil Conference & Exhibition](#)

[Nov 15](#) [ADAM-Houston Monthly Luncheon](#)

[Nov 19](#) [IPAA Oil & Gas for Newcomers](#)

[Nov 19](#) [Houston Producers Forum Luncheon](#)

[Nov 19-21](#) [DUG Midcontinent \(Oklahoma City\)](#)

December 2019

[Dec 17](#) [Houston Producers Forum Luncheon](#)

[Dec 20](#) [ADAM-Houston Monthly Luncheon](#)

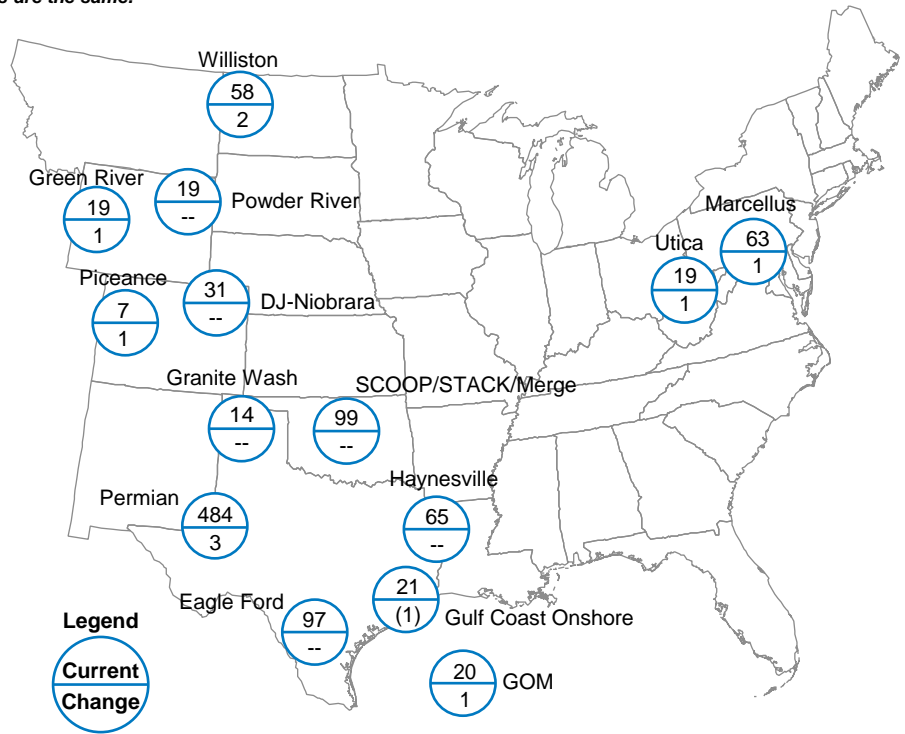


January 28, 2019

Rig Count Summary

BMO uses updated basin outlines, and the resulting rig counts, to more accurately represent current basin knowledge. The data below reflect these changes and is different than those shown by Baker Hughes. The totals are the same.

	This Week	Change	Last Week	Last Year
Total Rigs	1,059	9	1,050	947
Oil	862	10	852	759
Gas	197	(1)	198	188
Miscellaneous	--	--	--	--
Directional	59	4	55	73
Horizontal	932	3	929	808
Vertical	68	2	66	66
Basin				
Permian	484	3	481	427
SCOOP/STACK/Merge	99	--	99	97
Granite Wash	14	--	14	19
Eagle Ford	97	--	97	81
Haynesville	65	--	65	56
Marcellus	63	1	62	55
Utica	19	1	18	23
Williston	58	2	56	45
DJ-Niobrara	31	--	31	25
Green River	19	1	18	24
Powder River	19	--	19	12
Piceance	7	1	6	8
Gulf Coast Onshore	21	(1)	22	17
GOM	20	1	19	17
Alaska	11	1	10	5
Other	32	(1)	33	36
Mid-Con	21	--	21	15
Rockies	3	--	3	4
Western	6	(1)	7	14
Eastern	2	--	2	3



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Source of rig count stats: Baker Hughes