



March 11, 2019

Covering the Week of March 1 to March 7, 2019

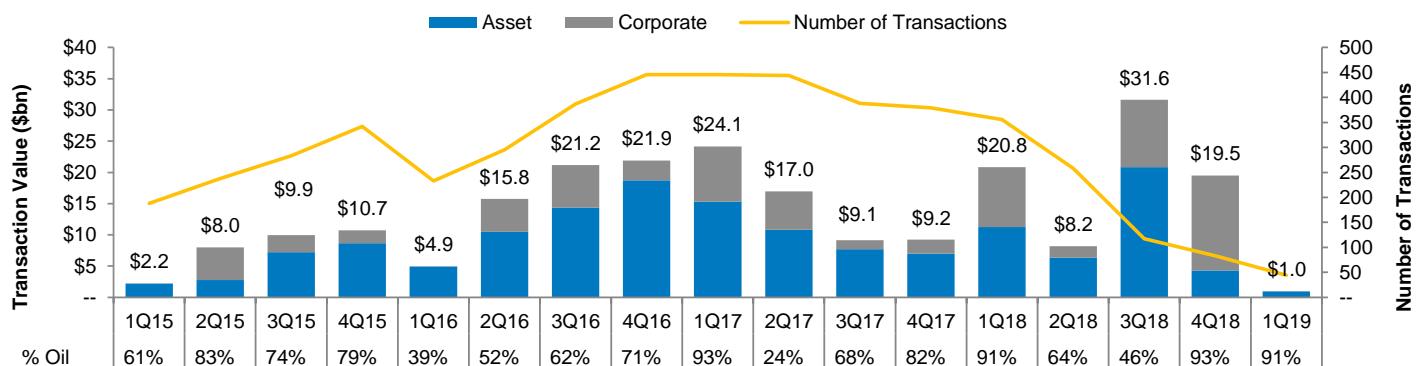
Week in Review

- INPEX Americas, Inc. agreed to acquire Eagle Ford assets from GulfTex Energy
- The March issue of BMO Calgary's A&D (Canadian) Market Monitor went live last week – read more [here](#)

Key Industry Indicators

Indicator	Current Value	Week's Change	% Change	Direction
Prompt Oil Price (\$/bbl)	\$56.66	(\$0.56)	(1.0%)	↓
Prompt Gas Price (\$/mmbtu)	\$2.87	\$0.05	1.9%	↑
Wkly Trans. Value (\$mm)	\$18	(\$293)	(94%)	↓
Wkly Trans. Count	4	--	--	—
US Rig Count	1,027	(11)	(1.1%)	↓
US Oil Prod'n (mmbbl/d)	12.1	--	--	—
US Gas Prod'n (bcf/d) ⁽¹⁾	107.8	--	--	—
US Oil Storage (mmbbl)	452.9	7.1	1.6%	↑
US Gas Storage (tcf)	1.4	(0.1)	(9.7%)	↓

Quarterly Deal Activity



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

Commodities

- Oil ended last week down. Venezuelan crude exports fell to the lowest level since at least January 2017 as more barrels were put on floating storage amid the country's struggles to find oil buyers post-sanctions. Libya's biggest oil field resumed production, adding another complication to OPEC's effort to trim a global supply glut. Alberta started an investigation into whether fracking operations or natural seismic activity caused the recent 4.6 magnitude earthquake in the region. Colorado's state legislature voted to narrowly pass a controversial oil and gas overhaul bill, which would give the local government authority over oil and gas drilling sites. The near-term contract closed down \$0.56, or 1.0%, at \$56.66
- Natural gas ended last week up. Due to low storage inventories, operators are trying everything they can to keep gas in the ground unless cash premiums are very wide, leaving market participants to buy gas in the spot market. The near-term contract closed up \$0.05, or 1.9%, at \$2.87

Equity Markets

- S&P E&P⁽²⁾ underperformed last week (2.3)% vs. SPX⁽²⁾ (1.3)%
- The major U.S. equity indexes finished mostly lower last week. Consumer discretionary, consumer staples, financials, health care, industrials, materials, and tech all finished down. Real estate finished higher

Debt Markets

- Five issuers priced five tranches for \$3.1 billion in proceeds
- Year-to-date U.S. volume is down 7% year-on-year
- U.S. high yield funds reported an outflow of \$49 million
- ETFs reported an outflow of \$1.3 billion, while mutual funds reported an outflow of \$582 million
- High yield index yield was 6.55%; high yield energy index yield was 7.88%
- One E&P deal priced last week
 - CNX Resources (B3/BB-) priced \$500 million of 7.25% senior notes due 2027

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 December 2018.
2. S&P E&P = S&P Oil & Gas E&P Select Industry, SPX = S&P 500 Index.

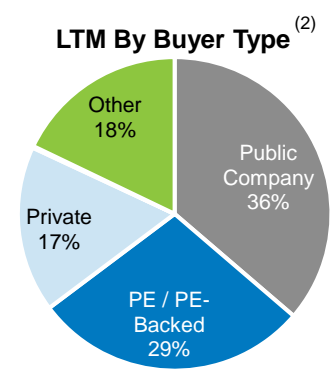
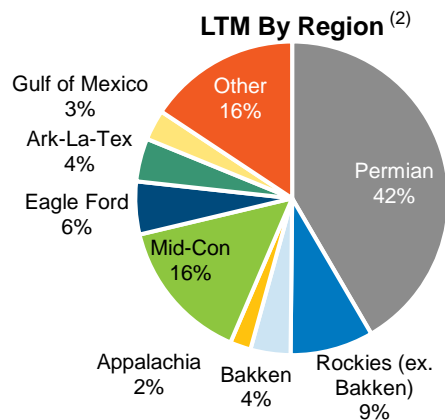
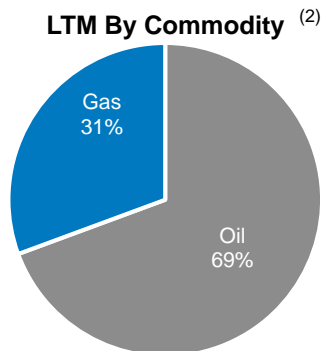


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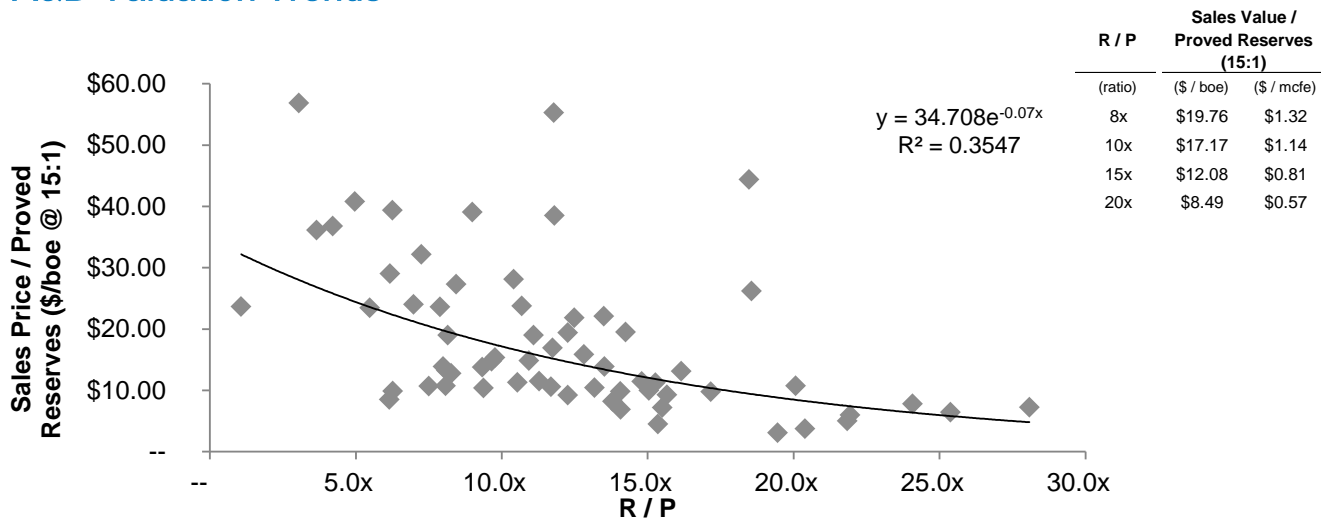
The 10 Most Recent Asset Transactions Over \$20 Million

Ann'd Date	Buyer	Seller	Area	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre)
26-Feb-19	Ring Energy Inc	Wishbone Energy Partners	Permian	37,206 net Central Basin Platform acres	\$300	\$8.75	\$50,000	\$8,063
19-Feb-19	Scout Energy Partners	Mid-Con Energy Partners	Other	North Texas assets	\$60	\$8.22	n.a.	n.a.
19-Feb-19	Mid-Con Energy Partners	Scout Energy Partners	Mid-Continent	Caddo, Grady, and Osage cos., OK	\$28	n.a.	\$20,960	n.a.
19-Feb-19	Undisclosed Buyer	Noble Energy	Permian	Non-core acreage in the Delaware Basin	\$63	n.a.	n.a.	n.a.
19-Feb-19	Undisclosed Buyer	Noble Energy	Permian	13,000 net acres in Reeves Co., TX	\$132	n.a.	n.a.	\$10,154
14-Feb-19	Undisclosed Buyer	Harvest Oil & Gas Corp	Other Rockies	San Juan Basin assets	\$43	\$1.57	\$10,835	n.a.
07-Feb-19	Kimbell Royalty Partners	EnCap Investments LP	Multi-Region	12,200 net royalty acres across the U.S.	\$151	n.a.	\$94,563	nmf
31-Jan-19	Undisclosed Buyer	Extraction Oil & Gas	Other Rockies	5,000 net acres in Powder River	\$22	n.a.	n.a.	\$4,480
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.

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⁾



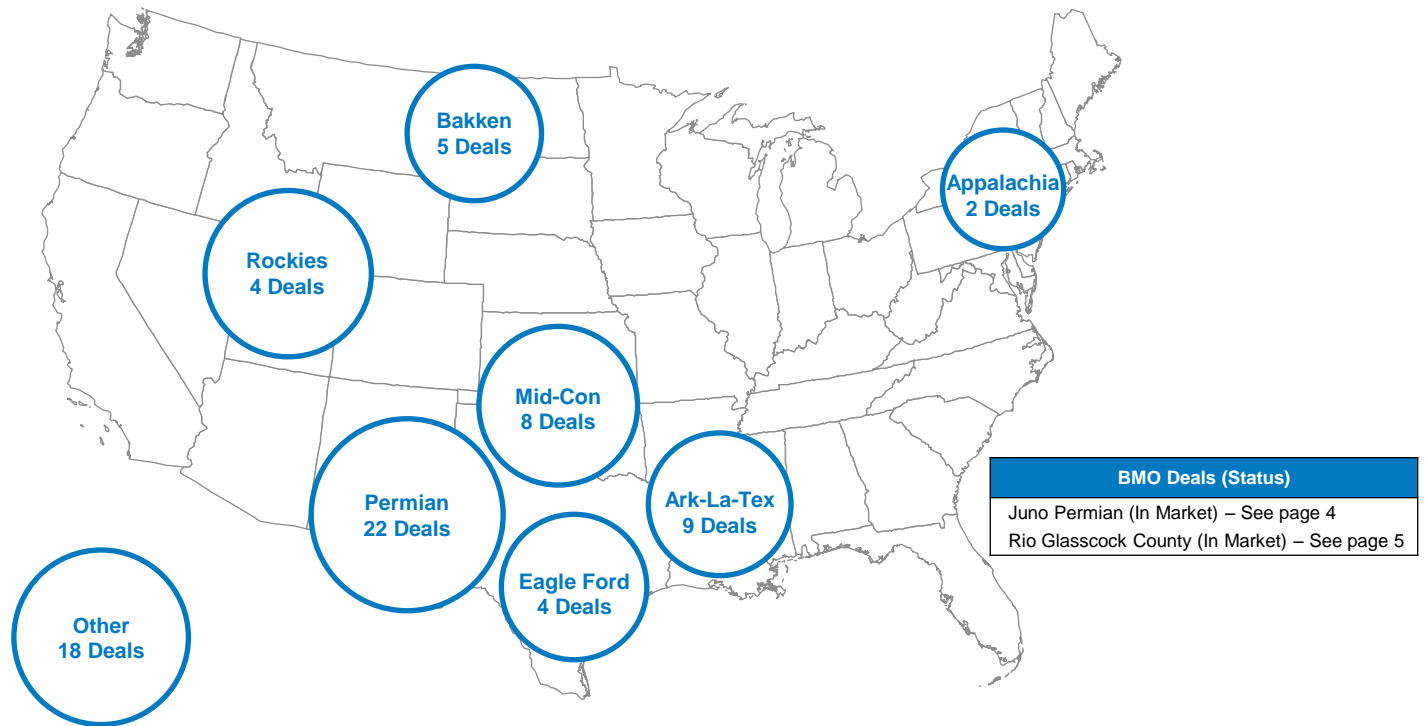
2 Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, PLS

1. Represents total enterprise value.
2. Calculated as percentage of total LTM transaction count (number of transactions, not dollar value).
3. 64 transactions from January 2015 to 2019 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.



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Select Significant Deals on the Market



A&D Headlines

- [Inpex Americas Acquires GulfTex Energy Assets in the Eagle Ford](#)

Industry Headlines

- [Oil Retreats as Surprise Jump in U.S. Stockpiles Hints at Glut](#)
- [Colorado Petroleum Council, Colorado Oil and Gas Association Lead Rally to Protect Colorado Jobs Against Senate Bill 181](#)
- [Colorado Lawmakers Weigh Dramatic Overhaul of Oil Drilling Laws](#)
- [Libya's Biggest Oil Field Restarts, Adding Hurdle to OPEC Cuts](#)
- [Maduro Gets Oil Lifeline from Russia after U.S. Sanctions Hit](#)

(Click headline to link to the full article)



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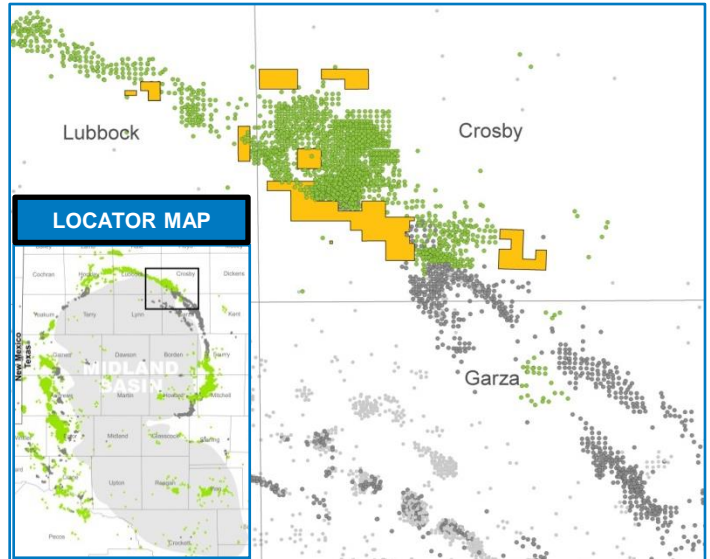
Currently on the Market from BMO: Juno Permian Divestiture

ASSET OVERVIEW

- Long-life, shallow decline oil assets located in the prolific Clearfork Trend of the Permian Basin
- Largely contiguous 10,250 net acre position located in the Hoople Field in Crosby and Lubbock Counties, Texas
 - 100% operated with high WI (100%) and NRI (>75%)
 - Favorable leasehold position with little-to-no drilling obligations until 2021; >50% of acreage position under two leases from one landowner
- Current production of ~300 net bopd (100% oil) with significant remaining drilling inventory consisting of ~200+ low-risk Clearfork locations
- Asset provides substantial, economic running room for organic and acquisitive growth
 - Existing Clearfork acreage only ~15% developed based on 10-acre development plan
 - Additional upside through 5-acre development, secondary recovery and Glorieta development, all of which have been demonstrated in offsetting acreage; CO2 EOR and Wolfcamp potential
 - Multiple bolt-on acquisition opportunities and new leasing opportunities
- Acreage position delineated through existing and offset development; full-scale development plan in place with drill-ready infrastructure

PROCESS OVERVIEW

- VDR available March 2019
- Contact Chelsea Neville at juno.permian@bmo.com or 713-546-9703 for a Confidentiality Agreement, access to the VDR, and/or to request a data room presentation



ASSET HIGHLIGHTS

Large, Contiguous Acreage Position in the Prolific Clearfork Oil Trend	<ul style="list-style-type: none"> • High quality anchor asset in the heart of the Midland Basin's Eastern Shelf with multiple stacked pay potential <ul style="list-style-type: none"> ■ Acreage situated in the Hoople Field, the most active Clearfork development area since 2015 ■ Majority of Juno's acreage is situated in the core of the field with vertical Clearfork EURs of ~60 Mbo • Primary recovery economics provide attractive IRRs with low development costs <ul style="list-style-type: none"> ■ Secondary recovery provides an incremental increase of 150% of primary EUR based on analog fields • Clearfork "A" STOOIP of up to 13 Mmbo per section based on core and log analysis • Minimal drilling obligations until 2021; moderate thereafter
Increased Oil Cuts and Improved Economics from Enhanced Completions	<ul style="list-style-type: none"> • Targeted, more optimized ("Gen II") fracs demonstrate robust EURs and lower WOR vs. offset results <ul style="list-style-type: none"> ■ Fracture growth limited to ~40 feet from perf ■ Oil cuts have improved by three-fold using selective completions • Prior generation completions took the entirety of the pay zone, thereby increasing communication with higher water saturation intervals
Asset Ready for Full-Scale Development	<ul style="list-style-type: none"> • Significant inventory of 200+ economic Clearfork locations remaining (at 10-acre spacing) • Fast cycle times and favorable land position provides the ability to accelerate development within the first year <ul style="list-style-type: none"> ■ Juno II in the Hoople Field grew production by over 25x in less than 3 years ■ Juno III assets positioned to grow similarly • Inexpensive access to water sources and disposal provides for low-cost waterflood and frac'ing operations • Significant existing investment in infrastructure, including electrical, roads, pipelines and facilities, enable quick ramp to full-scale development • No deferred maintenance or P&A issues
Substantial Unquantified Upside	<ul style="list-style-type: none"> • Potential for additional improvement in well performance through further enhanced completions • Near-term development potential by exploiting the Glorieta across Juno's acreage position <ul style="list-style-type: none"> ■ Glorieta present on Juno position and position on trend with offset Glorieta development ■ Potential development opportunity to commingle Clearfork and Glorieta production, yielding twice the reserves with little incremental D&C capex • Additional reserve recovery from waterflood operations and 5-acre development; future tertiary recovery • Offset operator testing horizontal Wolfcamp potential in the area

Source: Juno Permian Divestiture announcement



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Currently on the Market from BMO: Rio Oil & Gas II Glasscock County Divestiture

ASSET OVERVIEW

- Opportunity to acquire highly economic and contiguous 1,645 gross acre position in the Midland Basin located in west-central Glasscock County, Texas
 - WI package provides high degree of operational control with 98% operated, 74% HBP, and 67% average WI
- Ten active vertical wells hold the majority of acreage
- Proven development opportunities targeting the Lower Spraberry, Wolfcamp A, and Wolfcamp D formations
- Active development by Parsley, Oxy, Diamondback, and others highlights robust returns and de-risked drilling locations
- Continued improvement in well performance driven by completion optimization
- WI and ORRI packages available

PROCESS OVERVIEW

- VDR available March 2019
- Contact Chelsea Neville (rio.glasscock@bmo.com or 713-546-9703) for a Confidentiality Agreement, access to the VDR, and/or to request a data room presentation



ASSET HIGHLIGHTS

- | | |
|---|---|
| Active Development By Offset Operators Producing Robust Returns | <ul style="list-style-type: none"> • Outstanding position in one of the most active basins in the U.S. with 181 rigs in the Midland Basin and 14 in Glasscock County • ~3,500 feet of porous, brittle, hydrocarbon rich pay available from the top of the Spraberry to the base of the Wolfcamp • Active offsetting development in the Lower Spraberry, Wolfcamp A, Wolfcamp B, and Wolfcamp D by Parsley, OXY, Crownquest, Cinnabar, Encana, SM, Callon, Diamondback, Hunt, and others <ul style="list-style-type: none"> ■ Parsley is actively developing with strong results its directly offsetting Calverley assets in the LS, WCA, and WCB <ul style="list-style-type: none"> – Parsley brought 17 wells online in 2018; outperformed historical results with peak rates up to 2,000 boepd (84% oil) – Parsley acquired Calverley position through BTA acquisition (\$40,000+/net acre) ■ OXY recently completed five wells (offsetting Rio) targeting the WCA and has two additional permits ready to drill • IP and EURs continue to increase through optimization of completion techniques: predominantly slickwater fracs with proppant loading at ~1,900 lbs/ft • Over 30 potential stacked locations with additional unquantified upside in the Wolfcamp D |
| Operated Asset Set Up For Efficient, Stacked-Pay, Long Lateral Development | <ul style="list-style-type: none"> • Contiguous 1,064 net acres in west-central Glasscock County; an additional 134 net overriding royalty acres also available to further increase NRIs • 75% effective (8/8ths) net revenue interest for WI package, excluding ORRI package • 74% of net acres HBP from vertical producers with remaining acreage in primary term with 2+ years remaining • Leasehold primed for efficient cube development with 100% of locations expected to support 7,500'+ laterals; 100% of acreage owns Spraberry through WCA rights and select ownership of WCD • No long term oil and gas sales dedications offer the purchaser marketing flexibility |
| Full Area Exit | <ul style="list-style-type: none"> • Full area exit for Rio • Rio's investments have been focused on assembling the position, perfecting subsurface interpretation, and readying the asset for full-field development |

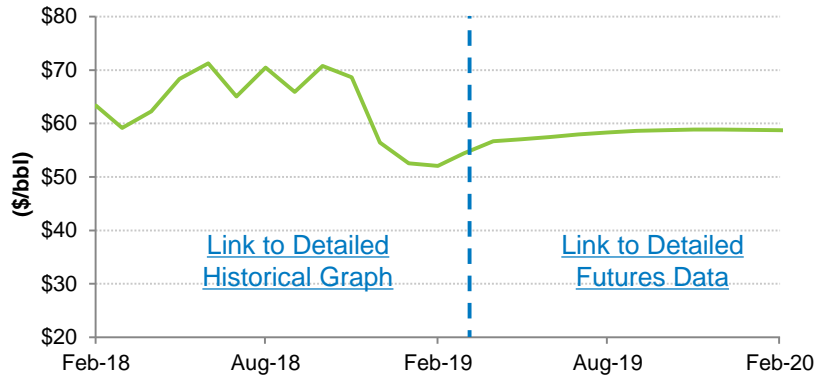
Source: Rio Oil and Gas II Glasscock County Divestiture announcement



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Commodity Prices

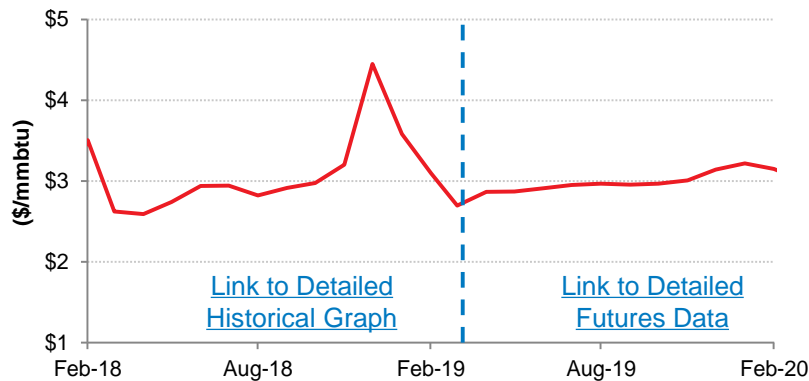
WTI OIL (HISTORICAL / FORECAST)



NYMEX WTI Futures as of 07-Mar-19 Close (\$/bbl)

Period ⁽¹⁾	Current	Last Wk.	6 Mo. Ago	1 Yr. Ago
12 Mo. Strip	\$58.23	\$58.61	\$66.57	\$58.82
2019	\$58.06	\$58.53	\$65.86	\$55.93
2020	\$58.09	\$58.10	\$62.59	\$53.14
2021	\$56.31	\$56.16	\$59.63	\$51.45
2022	\$54.95	\$54.79	\$57.38	\$50.78
2023	\$54.32	\$54.21	\$55.97	\$50.69

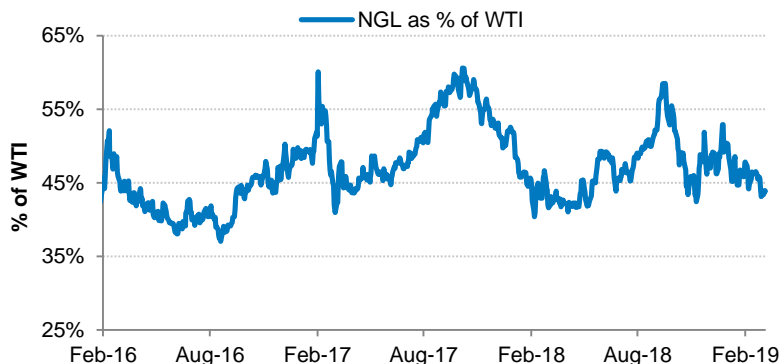
HENRY HUB NATURAL GAS (HISTORICAL / FORECAST)



NYMEX Gas Futures as of 07-Mar-19 Close (\$/mmbtu)

Period ⁽¹⁾	Current	Last Wk.	6 Mo. Ago	1 Yr. Ago
12 Mo. Strip	\$3.00	\$2.96	\$2.73	\$2.93
2019	\$2.96	\$2.91	\$2.70	\$2.82
2020	\$2.78	\$2.76	\$2.60	\$2.77
2021	\$2.64	\$2.63	\$2.56	\$2.82
2022	\$2.81	\$2.81	\$2.69	\$2.97
2023	\$2.81	\$2.81	\$2.69	\$2.97

NGL PRICING⁽²⁾



Historical Prices as of 07-Mar-19 Close (\$/gal)

NGLs	Current	Last Wk.	6 Mo. Ago	1 Yr. Ago
Ethane	\$0.30	\$0.28	\$0.49	\$0.24
Propane	\$0.69	\$0.68	\$1.05	\$0.73
Butane	\$0.71	\$0.75	\$1.14	\$0.78
Iso-butane	\$0.82	\$0.84	\$1.38	\$0.93
Pentane+	\$1.24	\$1.21	\$1.55	\$1.50

Source: BMO Commodity Products Group, Bloomberg, FactSet

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

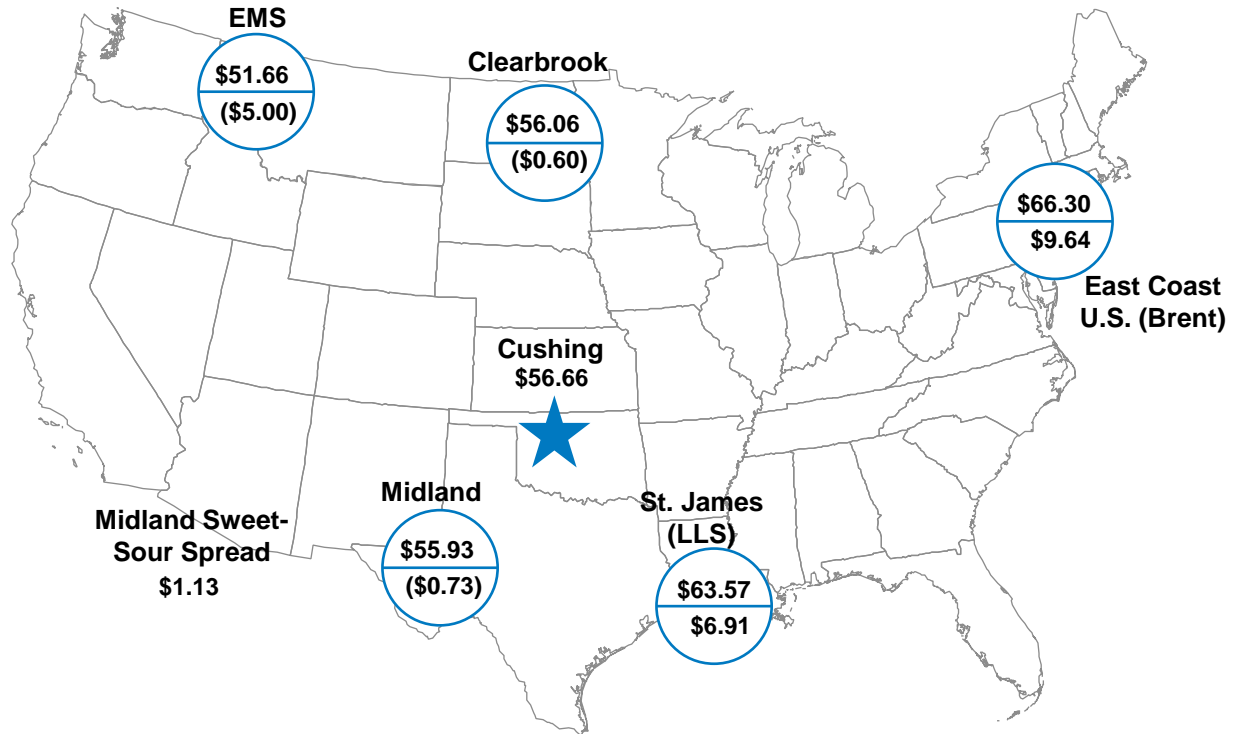


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Commodity Prices (cont'd)

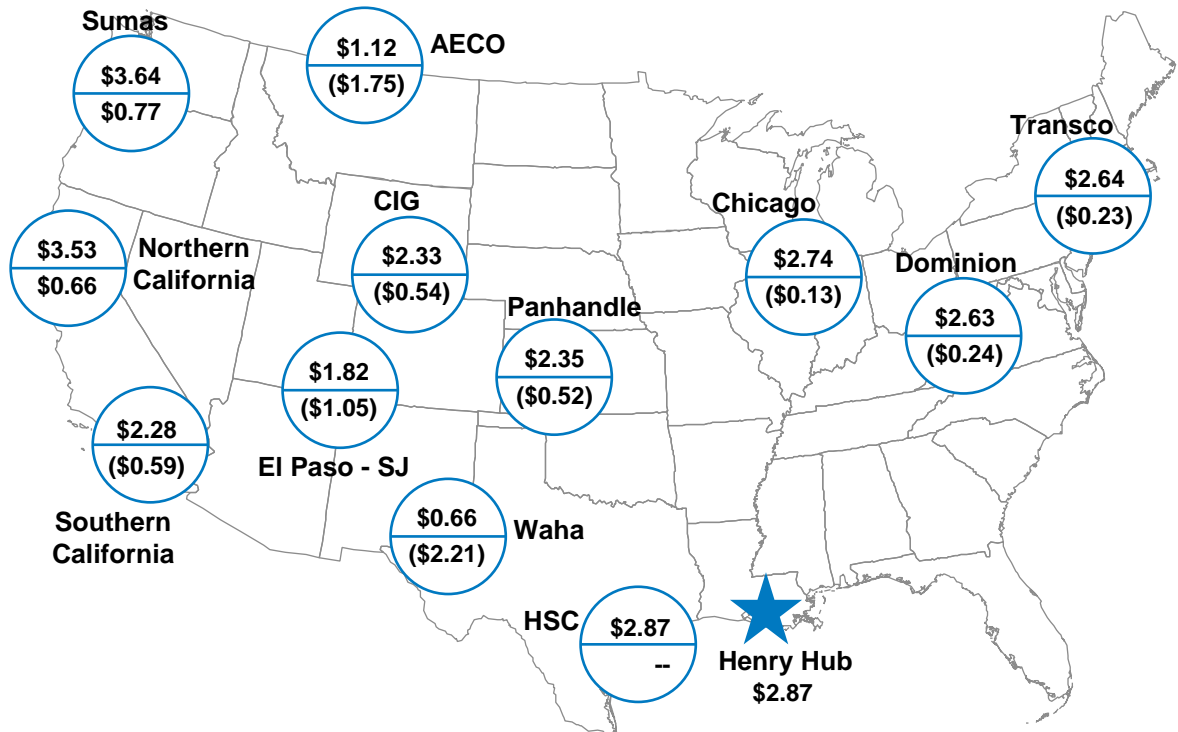
OIL PRICING & DIFFERENTIALS TO CUSHING WTI (\$ / BBL) – AS OF 07-MAR-19

Legend



NATURAL GAS PRICING & DIFFERENTIALS TO HENRY HUB (\$ / MMBTU) – AS OF 07-MAR-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.



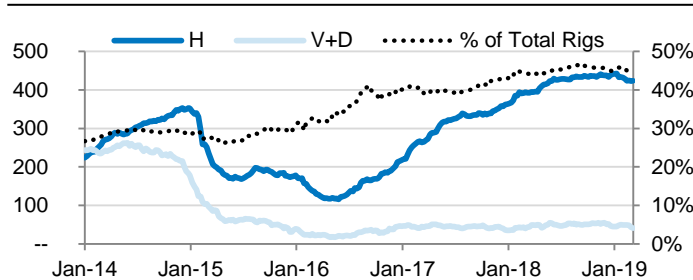
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Permian Snapshot

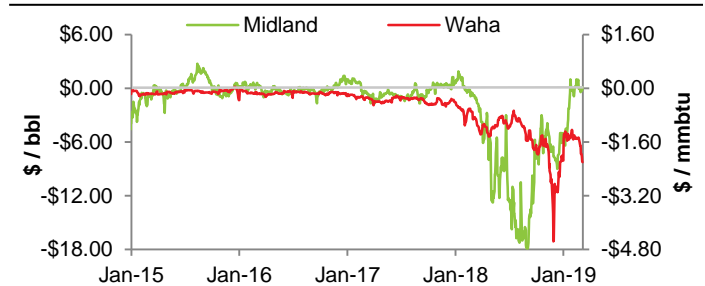
Item	Value	Wkly Change	Last Week
Rig Count	465	↓ (1)	466
Permitting Activity	32	↓ (357)	389

Item	Value	Wkly Change	Last Week
Oil Differential	\$0.15	↑ \$0.60	(\$0.45)
Gas Differential	(\$2.20)	↓ (\$0.48)	(\$1.72)

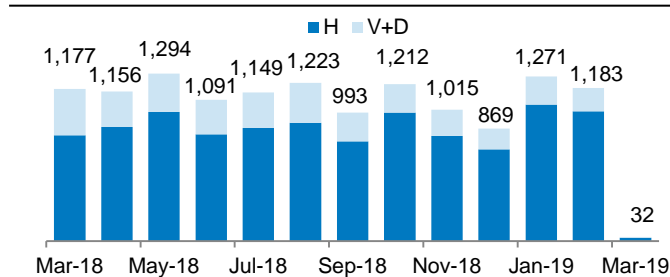
RIG COUNT



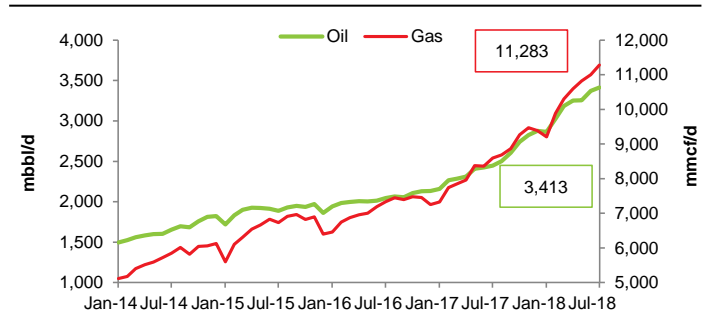
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

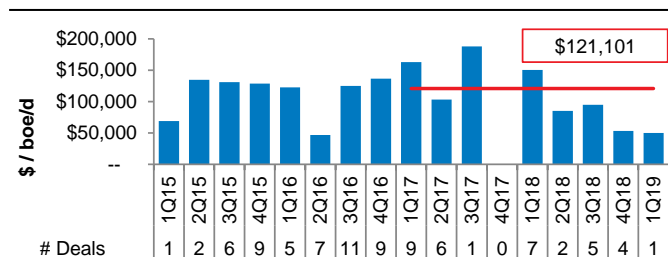


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

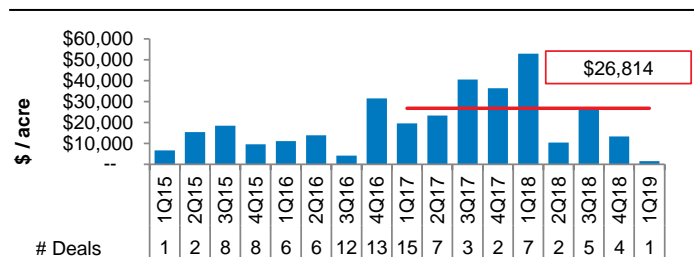
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
26-Feb-19	Ring Energy Inc	Wishbone Energy Partners	37,206 net Central Basin Platform acres	\$300	\$8.75	\$50,000	\$8,063
19-Feb-19	Undisclosed Buyer	Noble Energy	Non-core acreage in the Delaware Basin	\$63	n.a.	n.a.	n.a.
19-Feb-19	Undisclosed Buyer	Noble Energy	13,000 net acres in Reeves Co., TX	\$132	n.a.	n.a.	\$10,154
08-Jan-19	Undisclosed Buyer	MCM Energy Partners LLC	Midland Basin assets	\$20	n.a.	n.a.	n.a.
31-Dec-18	Lime Rock Resources	Greystone Petroleum	5,197 net acres in Central Basin Platform	\$120	n.a.	\$58,252	\$23,090
			Mean	\$127	\$8.75	\$54,126	\$13,769
			Median	\$120	\$8.75	\$54,126	\$10,154

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

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 \$45,000/boepd in 2014, \$30,000/boepd in 2015, \$35,000/boepd in 2016 & 2017, and \$40,000/boepd in 2018 & 2019.



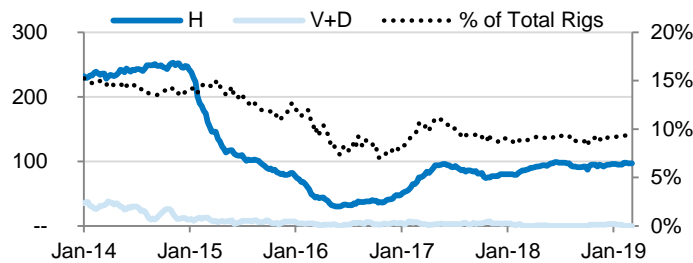
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Eagle Ford Snapshot

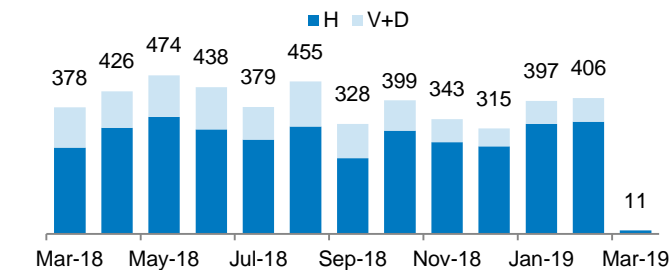
Item	Value	Wkly Change	Last Week
Rig Count	97	█ --	97
Permitting Activity	11	█ (140)	151

Item	Value	Wkly Change	Last Week
Oil Differential	\$8.00	↑ \$0.20	\$7.80
Gas Differential	\$0.00	↑ \$0.07	(\$0.07)

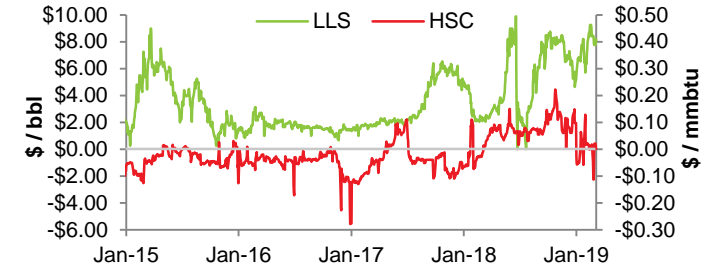
RIG COUNT



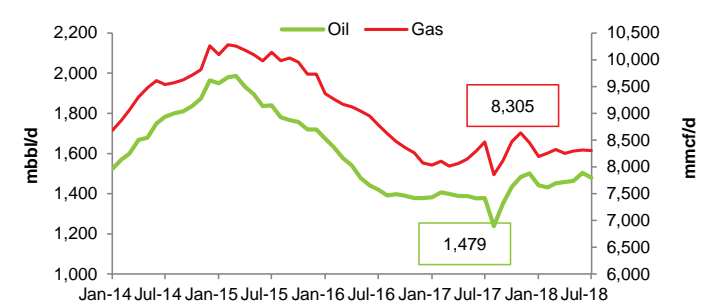
PERMITTING ACTIVITY BY MONTH



DIFFERENTIALS



GROSS PRODUCTION

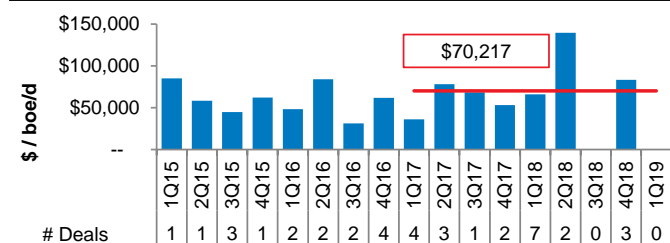


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

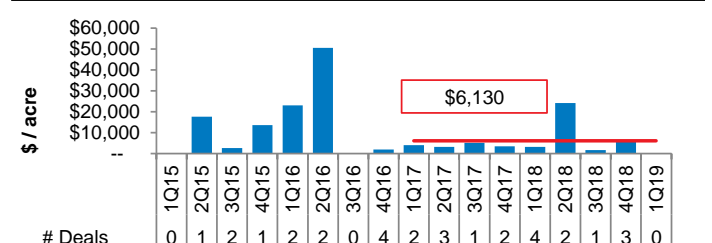
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
19-Nov-18	Lonestar Resources Inc	Sabine Oil & Gas Corp	2,706 net acres in Eagle Ford	\$39	\$2.98	\$48,375	\$14,302
20-Sep-18	WildHorse	Undisclosed Seller	20,305 net Eagle 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

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TRANSACTION PRODUCTION MULTIPLES⁽³⁾



TRANSACTION ADJUSTED NET ACRE MULTIPLES^(3,4)



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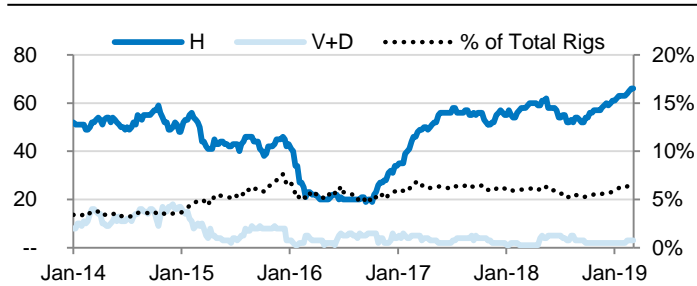
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Ark-La-Tex Snapshot

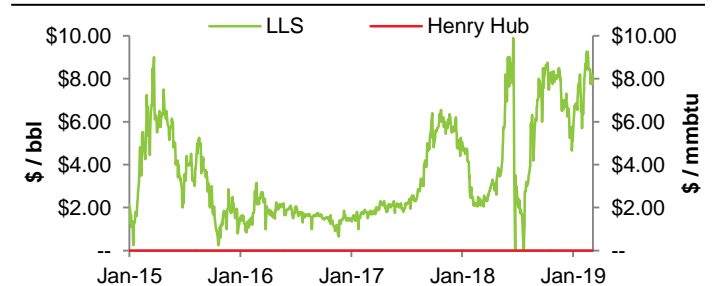
Item	Value	Wkly Change	Last Week
Rig Count	69	█ --	69
Permitting Activity	--	█ (44)	44

Item	Value	Wkly Change	Last Week
Oil Differential	\$8.00	█ ↑	\$7.80
Gas Differential	--	█ --	--

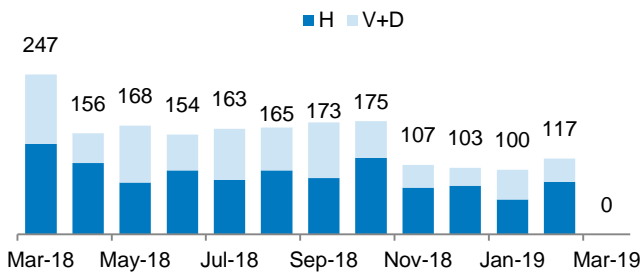
RIG COUNT



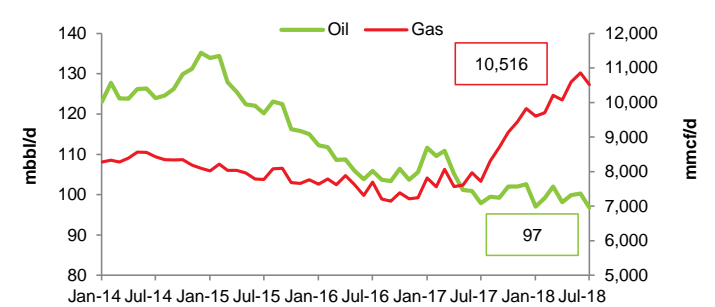
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

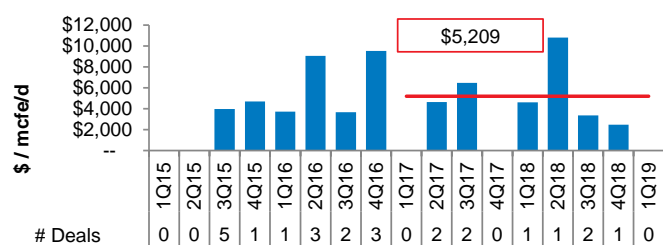


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

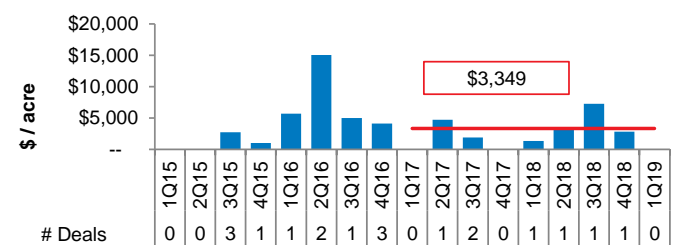
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/mcf)	Prod. Multiple (\$/mcf/d)	Net Acres (\$/acre) ⁽²⁾
19-Dec-18	Comstock	Shelby Shale LLC	6,023 net acres in Haynesville	\$21	n.a.	n.a.	\$3,404
19-Nov-18	Aethon III	QEP Resources Inc	49,700 net acres in Haynesville	\$735	\$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	\$7,488
			Median	\$100	\$1.23	\$4,487	\$6,957

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

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.



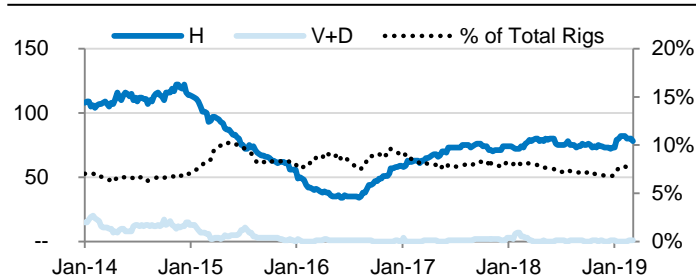
March 11, 2019

Appalachia Snapshot

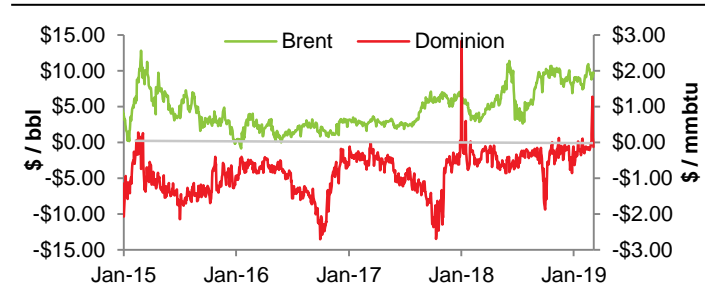
Item	Value	Wkly Change	Last Week
Rig Count	79	↓ (2)	81
Permitting Activity	23	↓ (52)	75

Item	Value	Wkly Change	Last Week
Oil Differential	\$9.64	↑ \$0.83	\$8.81
Gas Differential	(\$0.13)	↓ (\$0.10)	(\$0.02)

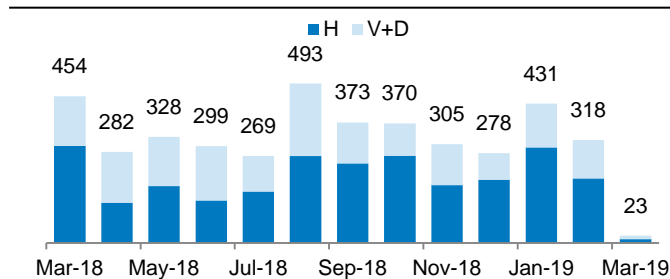
RIG COUNT



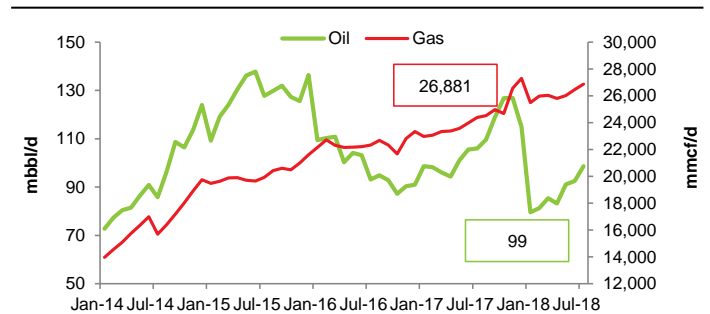
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

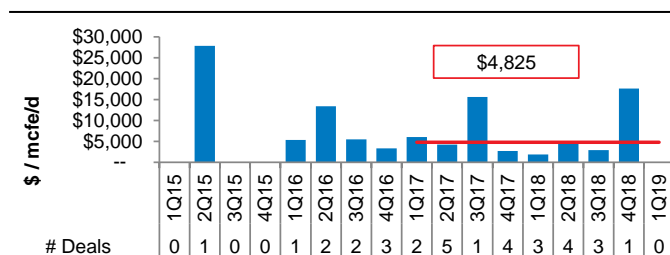


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

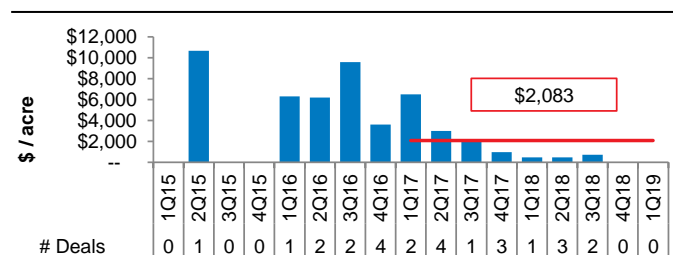
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾	Proved Multiple	Prod. Multiple	Net Acres	
				(\$mm)	(\$/mcf)	(\$/mcf/d)	(\$/acre) ⁽²⁾	
15-Oct-18	Undisclosed Buyer	Range Resources Corp	Overriding royalty interests in Appalachia	\$300	n.a.	\$17,649	n/m	
27-Aug-18	PennEnergy Resources	Rex Energy Corp	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.

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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 \$3,000/mcfepd in 2014, and \$2,000/mcfepd in 2015, 2016, 2017, 2018, and 2019.



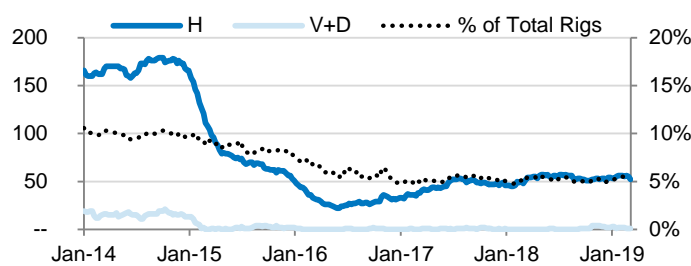
March 11, 2019

Bakken Snapshot

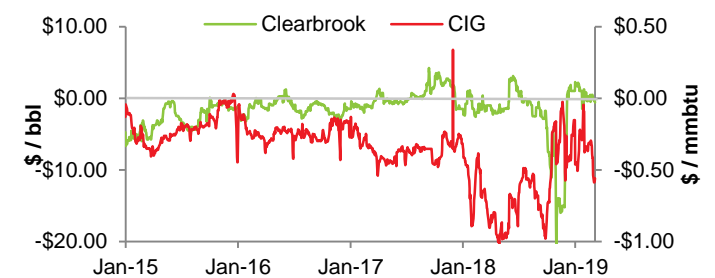
Item	Value	Wkly Change	Last Week
Rig Count	53	↓ (3)	56
Permitting Activity	--	↓ (18)	18

Item	Value	Wkly Change	Last Week
Oil Differential	(\$0.60)	↓ (\$0.85)	\$0.25
Gas Differential	(\$0.56)	↓ (\$0.14)	(\$0.42)

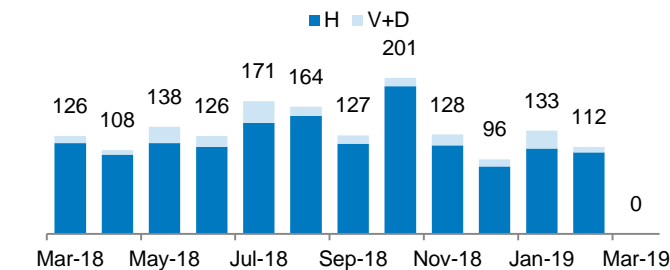
RIG COUNT



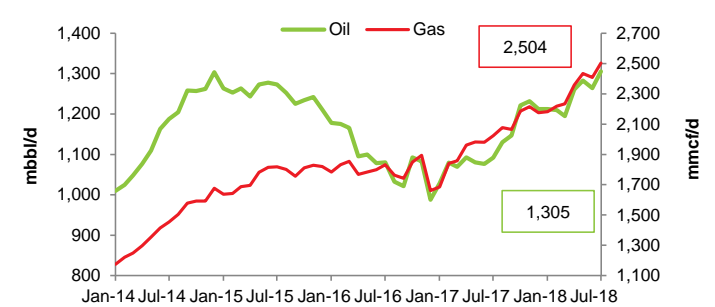
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

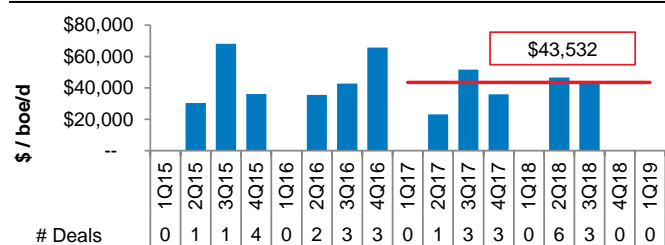


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

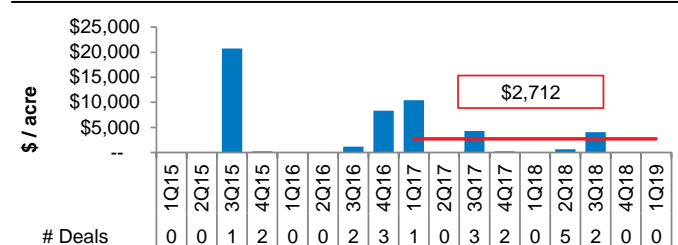
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
31-Jul-18	Northern Oil and Gas	W Energy Partners	10,600 net acres in Williston Basin	\$288	n.a.	\$42,708	\$27,196
18-Jul-18	Northern Oil and Gas	Pivotal Petroleum Partners 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.
25-Jun-18	Riverbend Oil & Gas LLC	Oasis Petroleum	10,167 net acres in Williston Basin	\$153	n.a.	\$49,196	\$15,049
			Mean	\$146	\$6.04	\$57,234	\$23,336
			Median	\$152	\$6.04	\$45,952	\$27,196

Blue = BMO provided transaction advisory services Green = BMO provided acquisition financing or related services
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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.



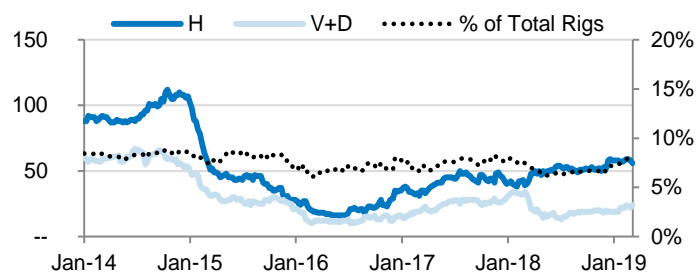
March 11, 2019

Rockies (excl. Bakken) Snapshot

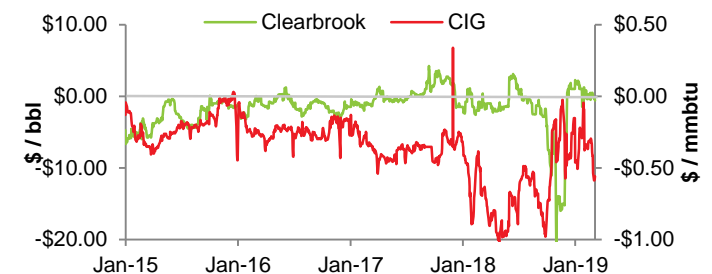
Item	Value	Wkly Change	Last Week
Rig Count	80	█ --	80
Permitting Activity	83	█ ↑ 17	66

Item	Value	Wkly Change	Last Week
Oil Differential	(\$0.60)	↓ (\$0.85)	\$0.25
Gas Differential	(\$0.56)	↓ (\$0.14)	(\$0.42)

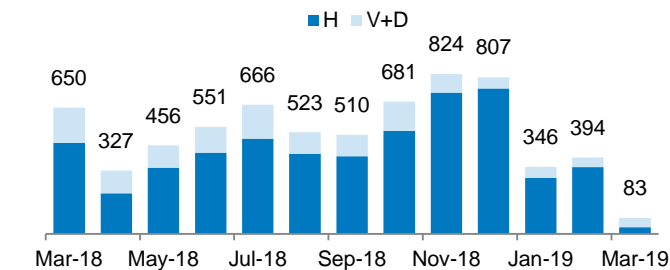
RIG COUNT



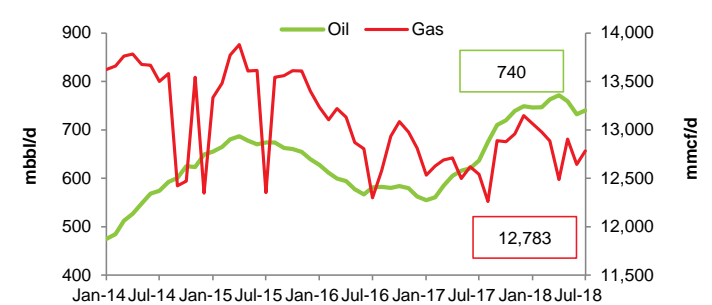
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

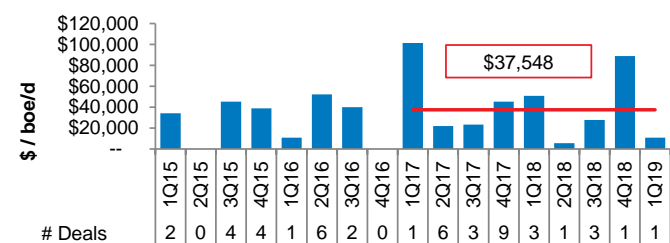


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

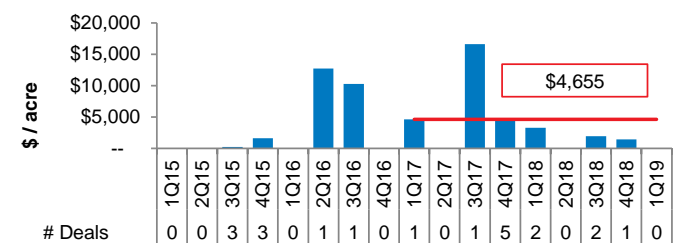
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
14-Feb-19	Undisclosed Buyer	Harvest Oil & Gas Corp	San Juan Basin assets	\$43	\$1.57	\$10,835	n.a.
31-Jan-19	Undisclosed Buyer	Extraction Oil & Gas	5,000 net acres in Powder River	\$22	n.a.	n.a.	\$4,480
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
			Mean	\$159	\$1.57	\$52,109	\$3,777
			Median	\$100	\$1.57	\$56,604	\$3,604

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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.



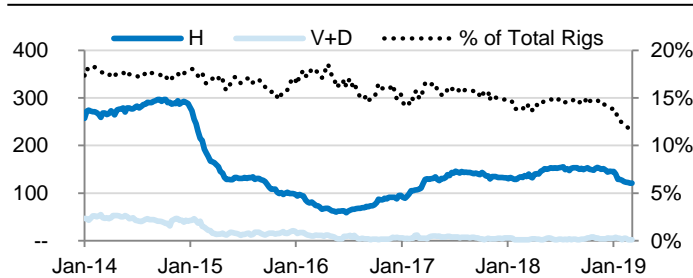
March 11, 2019

Mid-Continent Snapshot

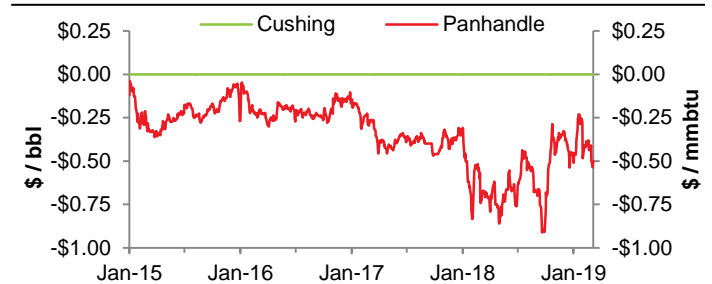
Item	Value	Wkly Change	Last Week
Rig Count	123	█ --	123
Permitting Activity	12	█ (57)	69

Item	Value	Wkly Change	Last Week
Oil Differential	--	█ --	--
Gas Differential	(\$0.50)	█ (\$0.10)	(\$0.41)

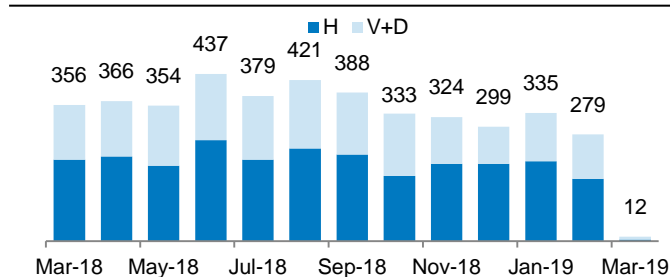
RIG COUNT



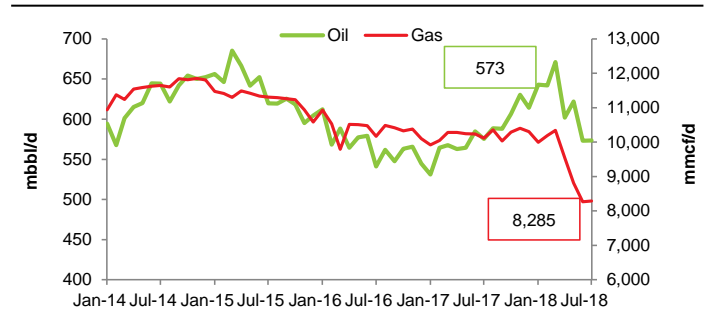
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

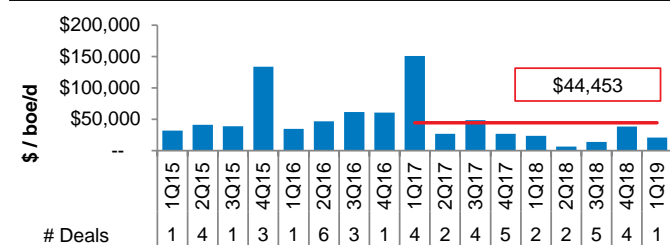


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

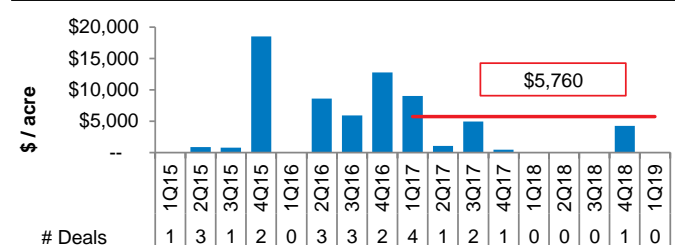
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾	
19-Feb-19	Mid-Con Energy Partners	Scout Energy Partners	Caddo, Grady, and Osage cos., OK	\$28	n.a.	\$20,960	n.a.	
31-Dec-18	Unit Corp	Undisclosed Seller	~8,700 net acres in Western OK	\$30	\$11.38	n.a.	\$3,402	
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	
				Mean	\$82	\$11.38	\$30,672	\$4,675
				Median	\$30	\$11.38	\$18,980	\$3,402

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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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- \$/acre multiple not adjusted for value associated with production.
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- 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.

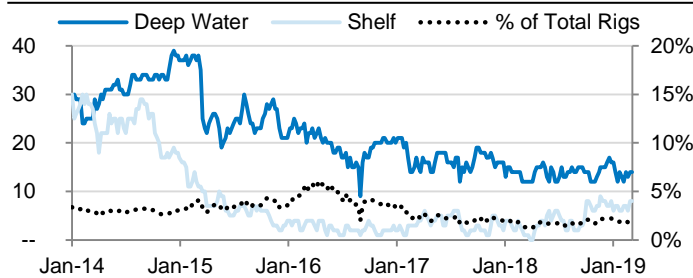


March 11, 2019

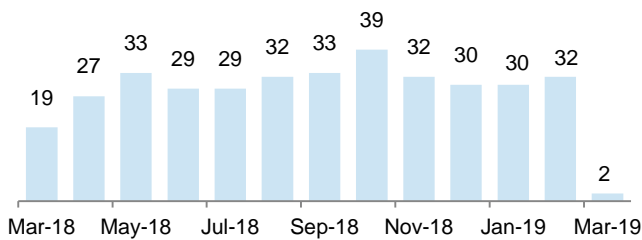
Gulf of Mexico Snapshot

Item	Value	Wkly Change	Last Week
Rig Count	22	█ --	22
Permitting Activity	2	█ ↓ (6)	8

RIG COUNT

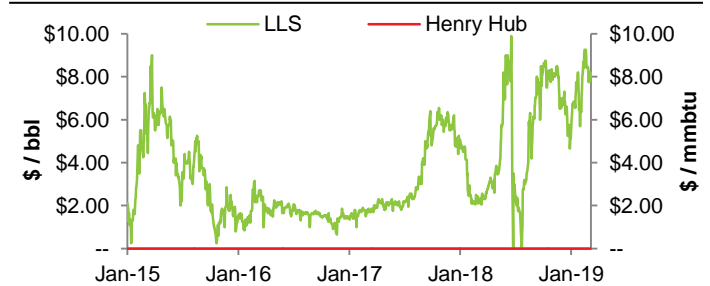


PERMITTING ACTIVITY BY MONTH⁽¹⁾

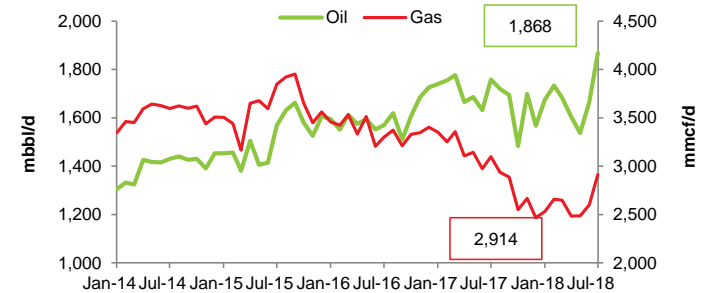


Item	Value	Wkly Change	Last Week
Oil Differential	\$8.00	█ ↑ \$0.20	\$7.80
Gas Differential	--	█ --	--

DIFFERENTIALS



GROSS PRODUCTION

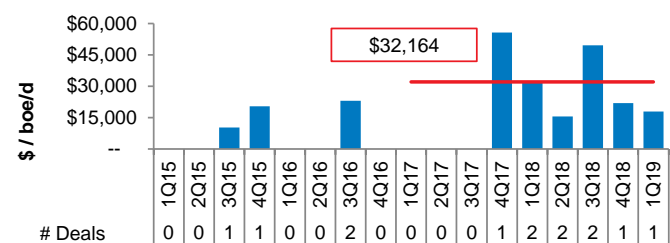


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

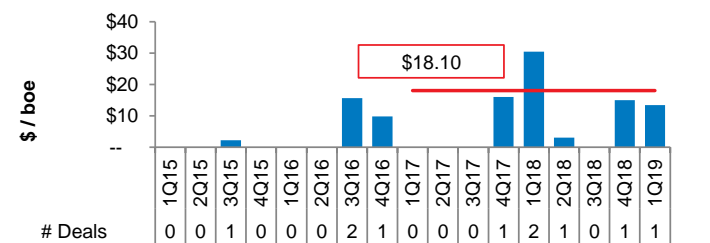
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽²⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽³⁾
16-Jan-19	Talos Energy Inc	Samson Energy Co LLC	Non-op Gulf of Mexico working interest	\$30	\$13.45	\$17,939	n.a.
10-Oct-18	Murphy	Petrobras	Gulf of Mexico joint venture	\$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.

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⁽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.



March 11, 2019

[Click event to open](#)

Upcoming Industry Events

March 2019

Mar 19	Houston Producers Forum Luncheon
Mar 22	ADAM-Houston Monthly Luncheon
Mar 26-28	International Petroleum Technology Conference

April 2019

Apr 8-9	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 17	176th OPEC Meeting
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 2020

Jan 23	IPAA Private Capital Conference
Jan 17	ADAM-Houston Monthly Luncheon
Jan 21	Houston Producers Forum Luncheon

February 2020

Feb 19	Houston Producers Forum Luncheon
Feb 25-26	DUG Haynesville (Shreveport)

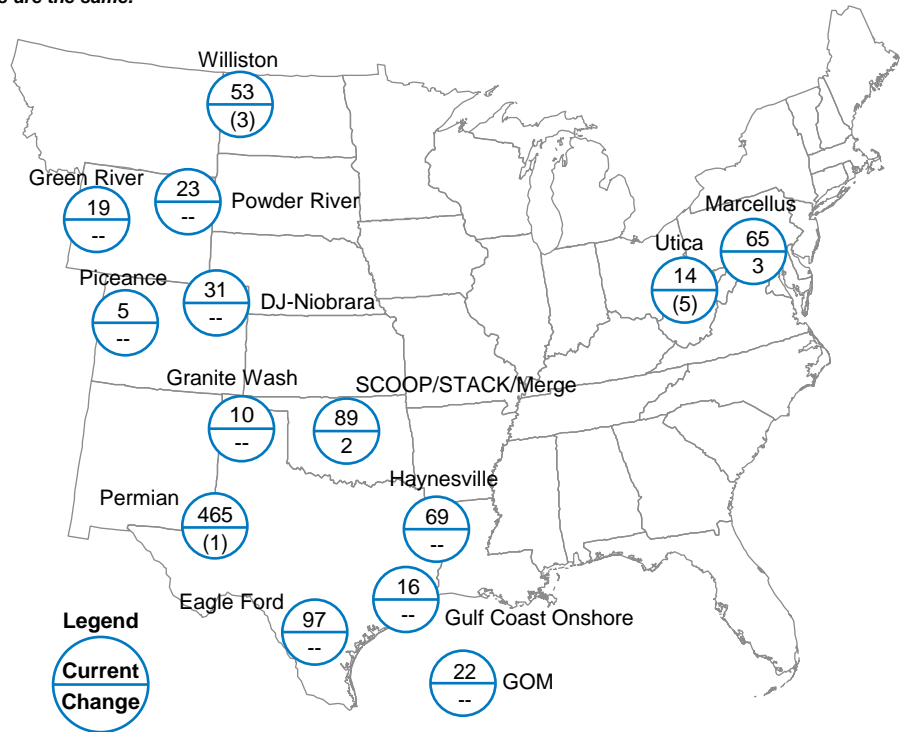


March 11, 2019

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	1,027	(11)	1,038	984
Oil	834	(9)	843	796
Gas	193	(2)	195	188
Miscellaneous	--	--	--	--
Directional	67	--	67	75
Horizontal	904	(7)	911	848
Vertical	56	(4)	60	61
Basin				
Permian	465	(1)	466	436
SCOOP/STACK/Merge	89	2	87	99
Granite Wash	10	--	10	21
Eagle Ford	97	--	97	87
Haynesville	69	--	69	59
Marcellus	65	3	62	57
Utica	14	(5)	19	23
Williston	53	(3)	56	51
DJ-Niobrara	31	--	31	24
Green River	19	--	19	19
Powder River	23	--	23	17
Piceance	5	--	5	7
Gulf Coast Onshore	16	--	16	26
GOM	22	--	22	13
Alaska	7	(4)	11	9
Other	42	(3)	45	36
Mid-Con	24	(2)	26	17
Rockies	2	--	2	5
Western	15	--	15	14
Eastern	1	(1)	2	--



Contacts

Geoff Roberts
MD & Co-Head of U.S. A&D
713-518-1268
geoff.roberts@bmo.com

Jason Martinez
MD & Co-Head of U.S. A&D
713-546-9771
jason.martinez@bmo.com

Howard Barnwell
MD & Transactions Mgr.
713-546-9767
howard.barnwell@bmo.com

Rob Priske
MD & Transactions Mgr.
713-546-9727
rob.priske@bmo.com

Marian Yu
Associate

Aaron Moeller
Associate

Chelsea Neville
Transactions Coordinator

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