

July 29, 2019

Covering the Week of July 19 to July 25, 2019

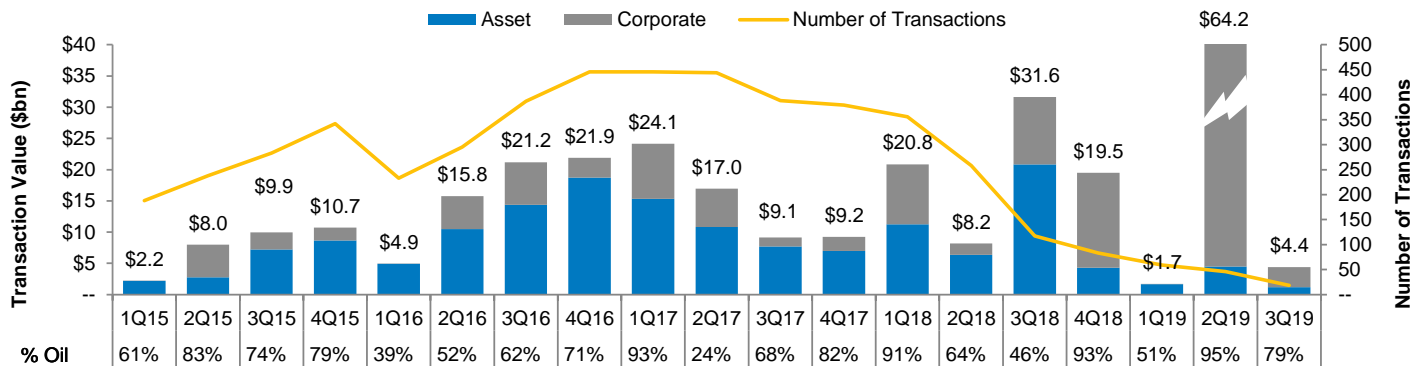
Week in Review

- Range Resources sold a 2% ORRI in 350,000 net surface acres in southwest Appalachia to Franco-Nevada, Lime Rock Resources, and San Jacinto Minerals for \$600 million (see page 4 for more detail)
- Range Resources concurrently announced that it sold 20,000 non-producing net acres in Armstrong County, PA for \$34 million
- California Resources Corporation formed a joint venture with Colony Capital to invest up to \$500 million (\$320 million initial commitment) for development in the San Joaquin Basin
- Diversified Gas & Oil entered into a stalking horse bid to acquire Ohio Utica assets from EdgeMarc Energy Holdings for \$50 million
- Presidio Petroleum announced that it was the buyer of Apache's Western Anadarko assets; **BMO acted as Left Lead Arranger and Administrative Agent for Presidio**
- Switchback Energy Acquisition Corporation filed for a \$300 million IPO

Key Industry Indicators

Indicator	Current Value	Week's Change	% Change	Direction
Prompt Oil Price (\$/bbl)	\$56.02	\$0.72	1.3%	↑
Prompt Gas Price (\$/mmbtu)	\$2.24	(\$0.05)	(2.2%)	↓
Wkly Trans. Value (\$mm)	\$984	(\$2,245)	(70%)	↓
Wkly Trans. Count	4	(3)	(43%)	↓
US Rig Count	946	(8)	(0.8%)	↓
US Oil Prod'n (mmbbl/d)	11.3	(0.7)	(5.8%)	↓
US Gas Prod'n (bcf/d) ⁽¹⁾	109.9	--	--	—
US Oil Storage (mmbbl)	445.0	(10.8)	(2.4%)	↓
US Gas Storage (tcf)	2.6	0.0	1.4%	↑

Quarterly Deal Activity



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

Commodities

- Oil ended last week up. Iran seized two British tankers, and Britain tried to de-escalate the situation. Iran also announced that they sentenced to death several citizens accused of being trained by the CIA and spying for the U.S. government. The U.S. denied involvement. It was announced that senior U.S. officials will be in China to continue trade negotiations with senior officials from China. EIA reported that crude oil inventories fell. There was speculation that a late and wet crop planting season in the mid-continent could lead to higher demand for propane this fall. The near-term contract closed up \$0.72, or 1.3%, at \$56.02
- Natural gas ended last week down. Recent U.S. weather forecasts were mild, which may hinder demand and reduce concerns of replenishment for winter. Western basis market continued to find a bid on some signs of heat as well as strength from Socal following the maintenance delays. The near-term contract closed down \$0.05, or 2.2%, at \$2.24

Equity Markets

- S&P E&P⁽²⁾ underperformed last week (0.3)% vs. SPX⁽²⁾ 0.3%
- The major U.S. equity indexes finished mixed last week. Consumer discretionary, financials, industrials, materials, and technology finished higher. Consumer staples, health care, and real estate finished lower

Debt Markets

- Eight issuers priced ten tranches for \$7.3 billion in proceeds
- U.S. high yield funds reported an inflow of \$1.3 billion
- High yield index yield was 6.00%; high yield energy index yield was 8.72%

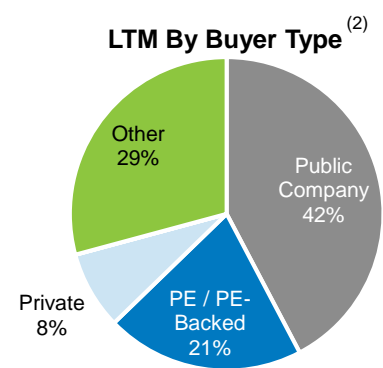
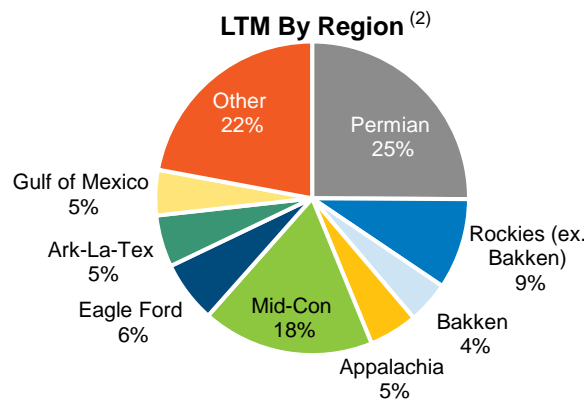
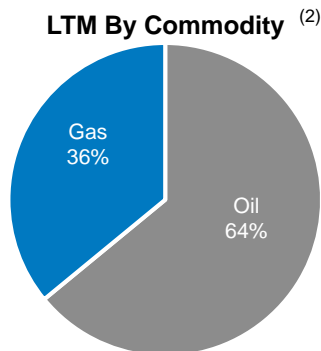
1 Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, EIA, PLS
 Note: Current quarter's data is through the week covered by this issue.
 1. EIA U.S. natural gas gross withdrawals and production reported monthly as of April 2019.
 2. S&P E&P = S&P Oil & Gas E&P Select Industry, SPX = S&P 500 Index.

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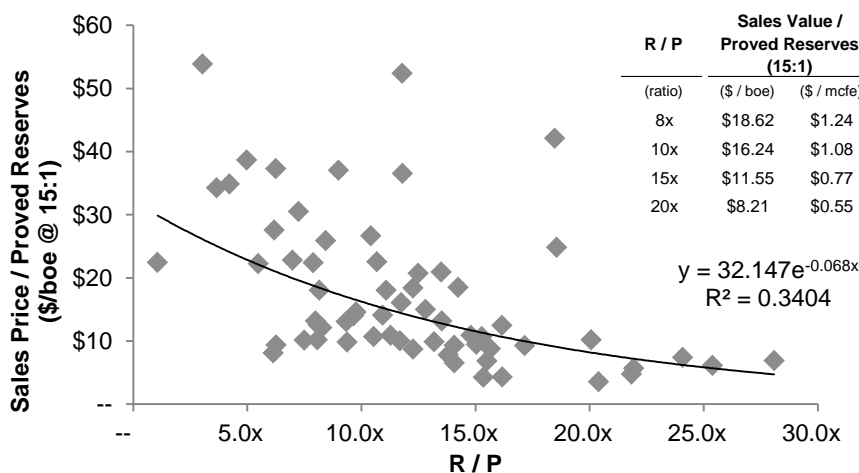
The 10 Most Recent Asset Transactions Over \$20 Million

Ann'd Date	Buyer	Seller	Area	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre)
24-Jul-19	Diversified Gas & Oil	EdgeMarc Energy Holdings	Marcellus/Utica	12,730 net acres in Ohio Utica	\$50	\$1.92	\$4,616	\$3,928
23-Jul-19	Colony Capital Inc	California Resources Corp	California	San Joaquin Basin JV	\$320	n.a.	n.a.	n.a.
19-Jul-19	Multiple	Range Resources Corp	Marcellus/Utica	Southwest Appalachia ORRIs	\$600	n.a.	\$94,742	nmf
17-Jul-19	Undisclosed Buyer	Sundance Energy	Eagle Ford	6,100 net acres in Dimmit County	\$30	n.a.	\$28,069	\$4,836
08-Jul-19	NextEra Energy Inc	Encana	Mid-Continent	140,000 net acres in Arkoma Basin	\$165	n.a.	\$12,857	\$1,179
27-Jun-19	Oil Search	Armstrong Oil & Gas Inc	Alaska	Additional interests in Alaska	\$450	n.a.	n.a.	n.a.
27-Jun-19	W&T Offshore	ExxonMobil	Gulf of Mexico	Mobile Bay assets	\$200	\$2.70	\$10,101	n.a.
24-Jun-19	Alliance Resource Partners	Wing Resources	Permian	Midland Basin mineral interests	\$145	n.a.	n.a.	nmf
12-Jun-19	Glendale Energy; TPG	Undisclosed Seller	Mid-Continent	Non-op interests in STACK	\$55	n.a.	n.a.	n.a.
30-Jun-19	Undisclosed Buyer	Range Resources Corp	Marcellus/Utica	20,000 non-producing net acres in PA	\$34	n.a.	n.a.	\$1,700

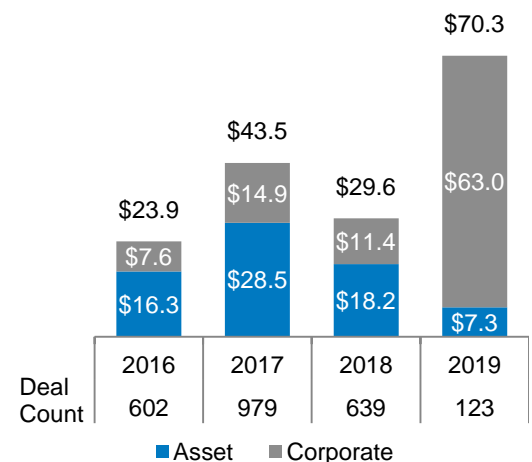
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A&D Valuation Trends⁽³⁾



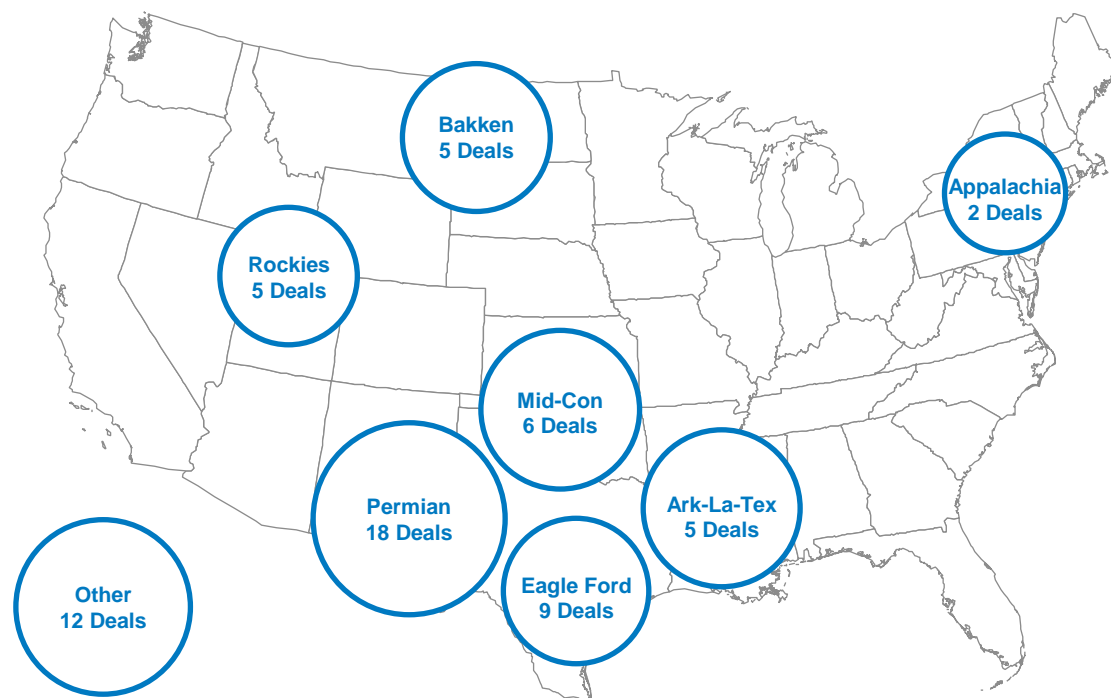
YTD Deal Activity (\$bn)⁽⁴⁾



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. 65 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.
 4. Year-to-date data is through this week's date for each respective year.

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Select Significant Deals on the Market



M&A&D Headlines

- [Range Announces Asset Sales That Will Total \\$634 Million](#)
- [Franco-Nevada Adds to Its U.S. Energy Interests, Initiates ATM Equity Program & Provides Details for Release of Q2 Results](#)
- [Lime Rock Resources Acquires Overriding Royalty Interest in the Appalachian Basin](#)
- [California Resources Corporation Announces a Joint Venture with Colony Capital to Invest up to \\$500 Million in Oil & Gas Properties](#)
- [DGO Enters into a Conditional Asset Purchase Agreement with EdgeMarc Energy Holdings to Acquire Assets in the State of Ohio](#)
- [Presidio Petroleum Completes Acquisition of Assets From Apache Corporation in Partnership With Morgan Stanley Energy Partners](#)
- [Switchback Energy Acquisition Corporation Announces Launch of Initial Public Offering](#)

Industry Headlines

- [Oil Spikes After API Reports Largest Crude Inventory Draw of the Year](#)
- [U.K. Oil Tankers Flee Persian Gulf as Tensions Rise Over Hormuz](#)
- [U.S. Punishes Chinese Company Over Iranian Oil](#)
- [As Tensions with Iran Rise, Oil Supply Fears Rise Anew](#)
- [Commercial Crude Inventories Plunge After Hurricane Barry](#)
- [Iran's President Warns Foreign Powers to Keep Naval Ships Out of the Persian Gulf](#)

(Click headline to link to the full article)

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Interesting Deal of the Week: Range Resources Divests Appalachia ORRs for \$600 Million

TRANSACTION SUMMARY

- On July 19, 2019, Range Resources agreed to sell a 2% proportionately reduced overriding royalty interest in 350,000 net surface acres in southwest Appalachia for \$600 million
 - Aggregate sale comprised of two separate 1% ORRI transactions
 - Franco Nevada acquired half of the position for \$300 million
 - Lime Rock Resources and San Jacinto Minerals II acquired the other half for \$300 million
 - The overriding royalty applies to the existing production and future development from the Marcellus formation and potential development from the Utica and Upper Devonian formations in Washington, Beaver, and western Allegheny Counties
 - Provides exposure to a significant inventory of undeveloped drilling locations

ASSET SUMMARY

- 2% overriding royalty interest in 350,000 net surface acres in southwest Appalachia
- Q1 2019 net royalty production of ~38 mmcfe/d and total property production of ~1.9 bcfe/d
- 2019E annualized cash flow of \$48 million associated with royalty interest based on H1 2019 pricing
 - NGLs and condensate contribute ~50% of revenue

ACQUIRED ASSETS



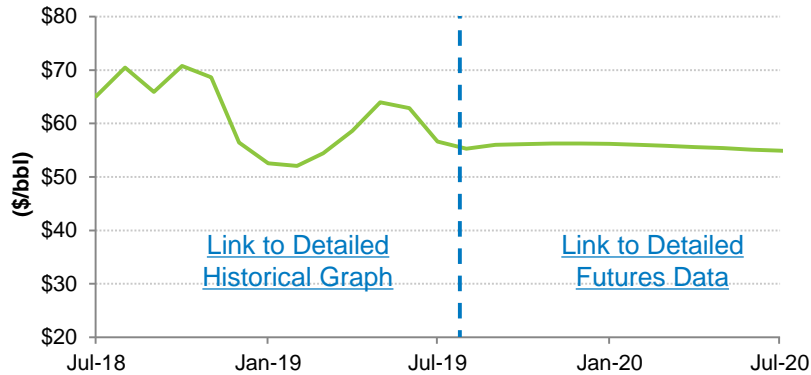
TRANSACTION METRICS

Purchase Price (US\$ mm)	
Total Consideration	\$600
Metrics	
2019E Annualized Cash Flow	\$48
Q1 2019 Net Production (mmcfe/d)	38
Multiples	
TEV / 2019E Annualized Cash Flow	12.5x
TEV / Q1 2019 Net Production (\$/mcf/d)	\$15,789

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Commodity Prices

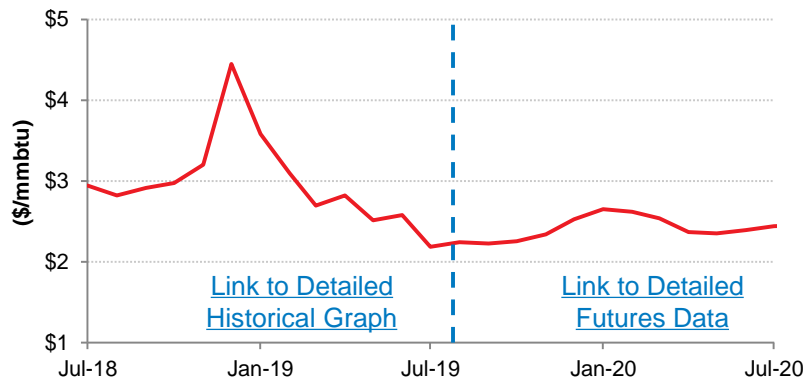
WTI OIL (HISTORICAL / FORECAST)



NYMEX WTI Futures as of 25-Jul-19 Close (\$/bbl)

Period ⁽¹⁾	Current	Last Wk.	6 Mo. Ago	1 Yr. Ago
12 Mo. Strip	\$55.71	\$54.91	\$54.87	\$66.16
2019	\$56.18	\$55.39	\$54.80	\$65.25
2020	\$55.06	\$54.03	\$54.92	\$62.09
2021	\$53.09	\$52.14	\$54.28	\$59.49
2022	\$52.27	\$51.47	\$53.91	\$57.54
2023	\$52.31	\$51.66	\$53.85	\$56.19

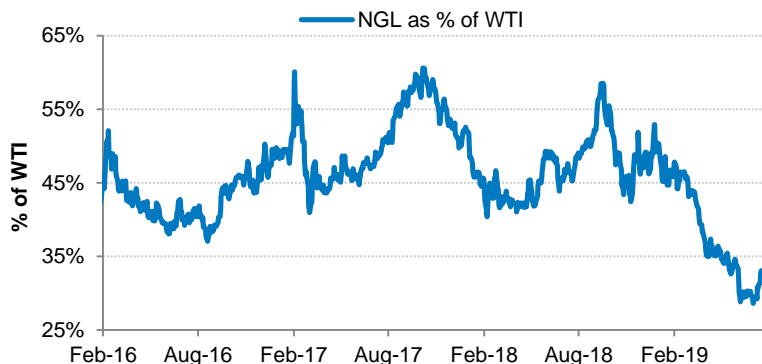
HENRY HUB NATURAL GAS (HISTORICAL / FORECAST)



NYMEX Gas Futures as of 25-Jul-19 Close (\$/mmbtu)

Period ⁽¹⁾	Current	Last Wk.	6 Mo. Ago	1 Yr. Ago
12 Mo. Strip	\$2.41	\$2.45	\$3.01	\$2.78
2019	\$2.32	\$2.36	\$2.99	\$2.73
2020	\$2.49	\$2.52	\$2.76	\$2.62
2021	\$2.55	\$2.56	\$2.65	\$2.58
2022	\$2.73	\$2.74	\$2.83	\$2.72
2023	\$2.73	\$2.74	\$2.83	\$2.72

NGL PRICING⁽²⁾



Historical Prices as of 25-Jul-19 Close (\$/gal)

NGLs	Current	Last Wk.	6 Mo. Ago	1 Yr. Ago
Ethane	\$0.14	\$0.18	\$0.34	\$0.35
Propane	\$0.49	\$0.51	\$0.68	\$0.98
Butane	\$0.50	\$0.50	\$0.71	\$1.06
Iso-butane	\$0.60	\$0.67	\$0.84	\$1.21
Pentane+	\$1.03	\$1.07	\$1.05	\$1.53

Source: BMO Commodity Products Group, Bloomberg, FactSet

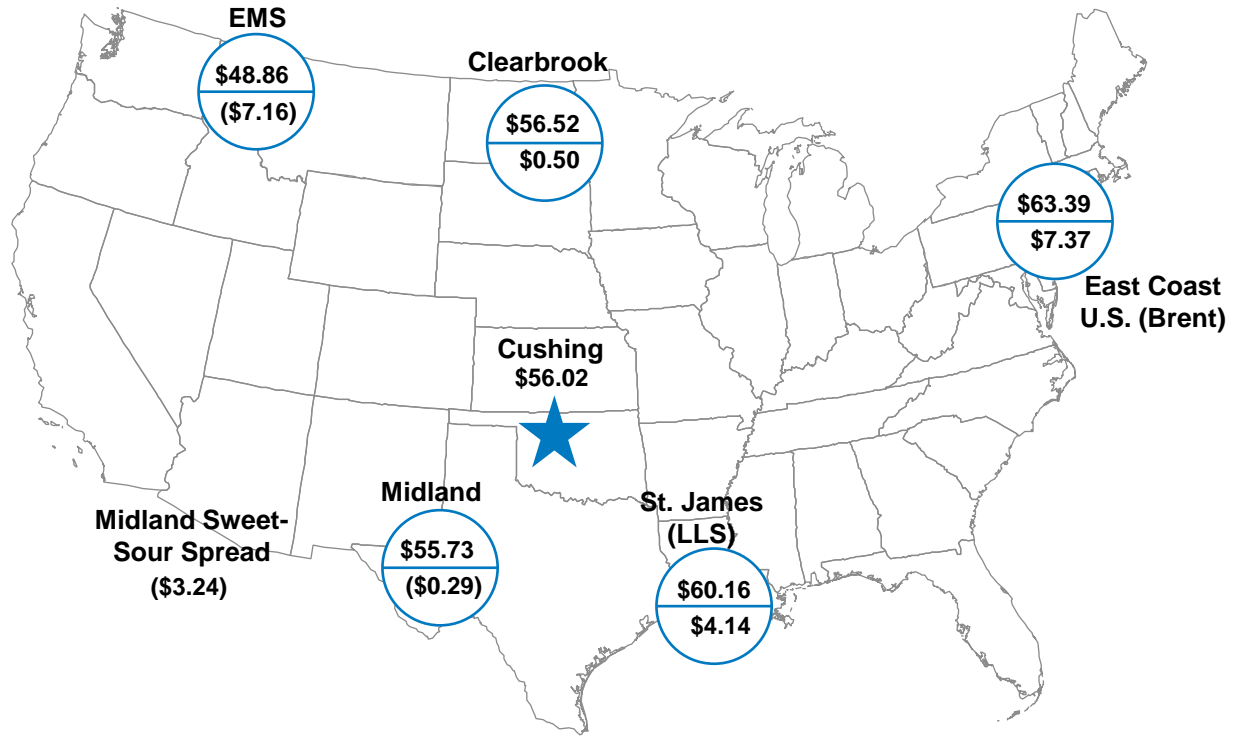
5 | 1. Future prices are calendar year average unless stated otherwise.
2. Assumes typical Gulf Coast barrel composition.

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Commodity Prices (cont'd)

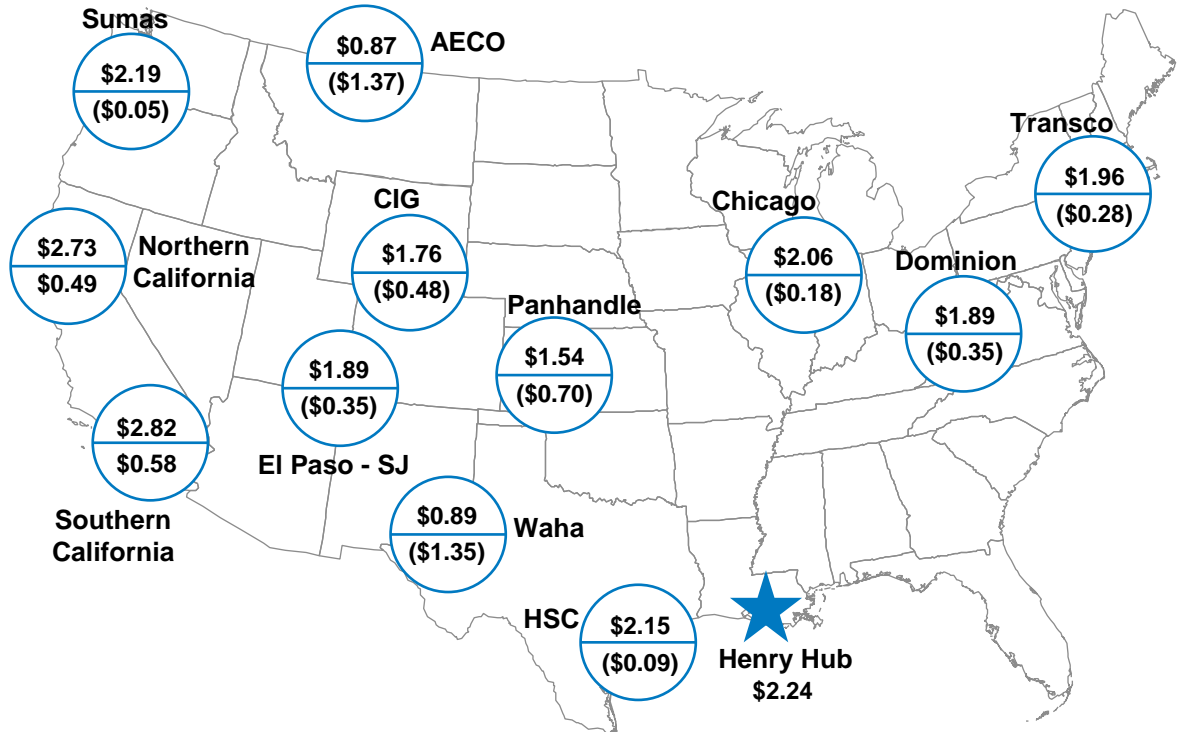
OIL PRICING & DIFFERENTIALS TO CUSHING WTI (\$ / BBL) – AS OF 25-JUL-19

Legend



NATURAL GAS PRICING & DIFFERENTIALS TO HENRY HUB (\$ / MMBTU) – AS OF 25-JUL-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.

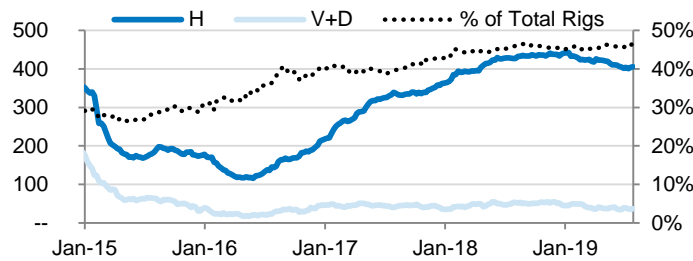
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Permian Snapshot

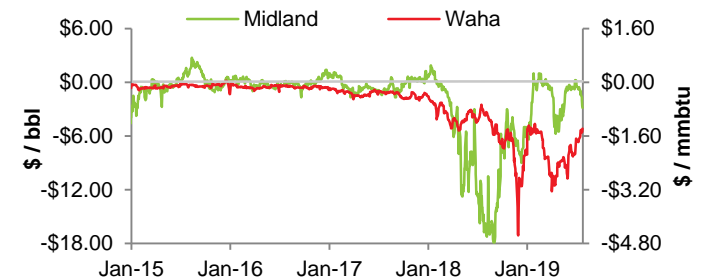
Item	Value	Wkly Change	Last Week
Rig Count	443	↑	440
Permitting Activity	175	↑	160

Item	Value	Wkly Change	Last Week
Oil Differential	(\$2.85)	↓	(\$1.05)
Gas Differential	(\$1.39)	↑	(\$1.44)

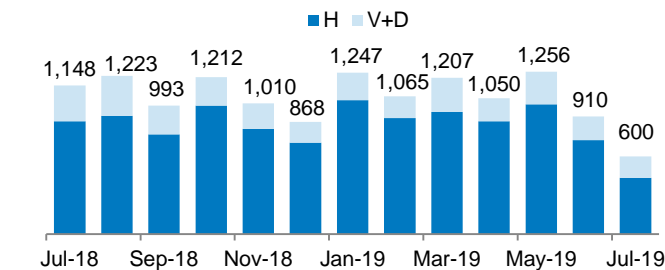
RIG COUNT



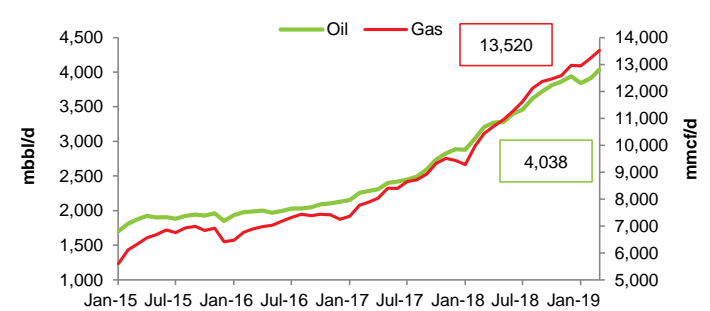
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

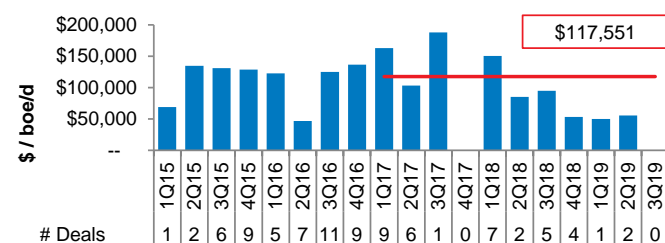


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

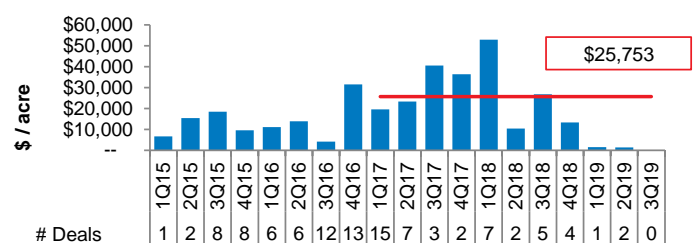
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
24-Jun-19	Alliance Resource Partners	Wing Resources	Midland Basin mineral interests	\$145	n.a.	n.a.	n/mf
07-May-19	Sabinal; Undisclosed	Diamondback Energy	CBP, NW Shelf, & Midland Basin	\$322	n.a.	\$49,538	\$2,927
08-Apr-19	Sequitur Energy Resources	Callon	9,850 net acres in Reagan & Upton, TX	\$260	n.a.	\$65,000	\$26,396
27-Mar-19	Undisclosed Buyer	Rosehill Resources	~880 net acres in Lea Co., NM	\$22	n.a.	n.a.	\$25,000
26-Feb-19	Ring Energy Inc	Wishbone Energy Partners	37,206 net Central Basin Platform acres	\$300	\$8.75	\$50,000	\$8,063
			Mean	\$210	\$8.75	\$54,846	\$15,597
			Median	\$260	\$8.75	\$50,000	\$16,532

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.

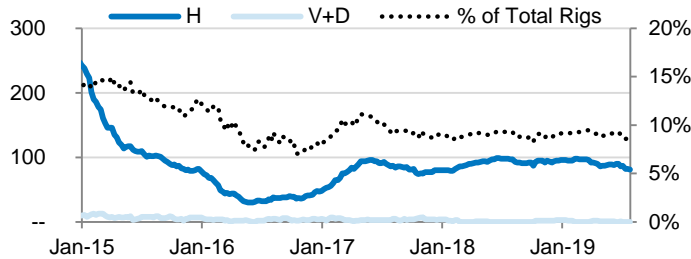
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Eagle Ford Snapshot

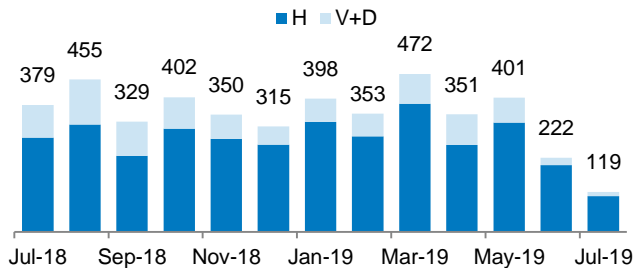
Item	Value	Wkly Change	Last Week
Rig Count	81	↓ (1)	82
Permitting Activity	44	↑ 12	32

Item	Value	Wkly Change	Last Week
Oil Differential	\$4.65	↑ \$0.85	\$3.80
Gas Differential	(\$0.08)	↓ (\$0.01)	(\$0.07)

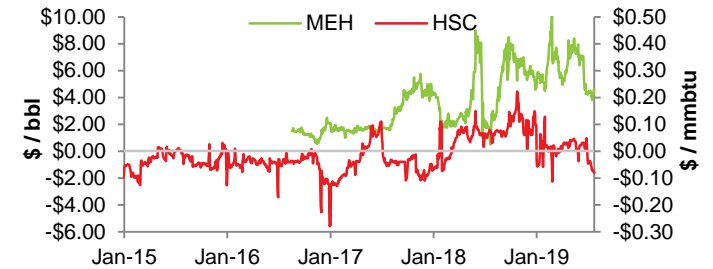
RIG COUNT



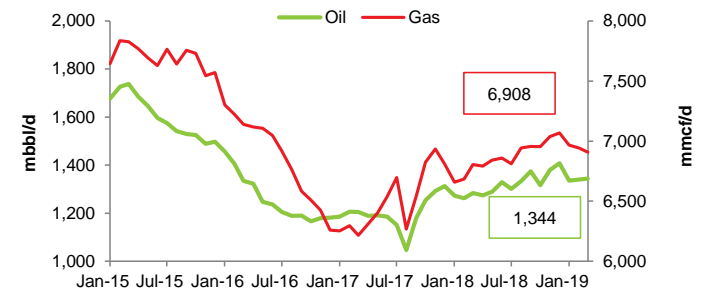
PERMITTING ACTIVITY BY MONTH



DIFFERENTIALS



GROSS PRODUCTION

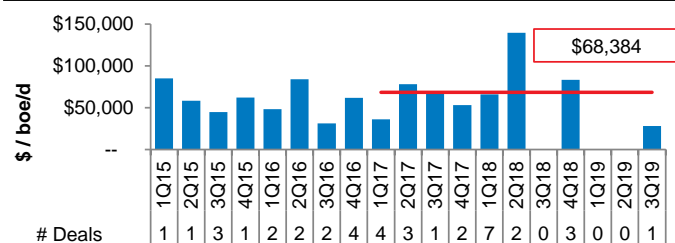


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

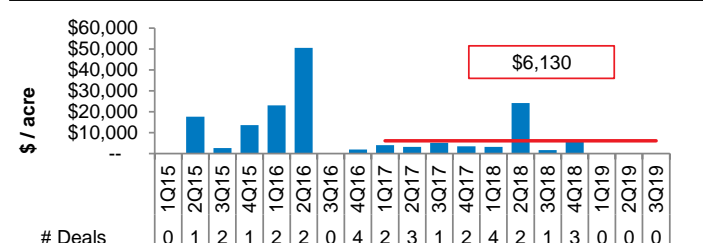
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾	
17-Jul-19	Undisclosed Buyer	Sundance Energy	6,100 net acres in Dimmit County	\$30	n.a.	\$28,069	\$4,836	
19-Nov-18	Lonestar Resources Inc	Sabine Oil & Gas Corp	2,706 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.	
				Mean	\$33	\$2.98	\$38,222	\$6,960
				Median	\$31	\$2.98	\$38,222	\$4,836

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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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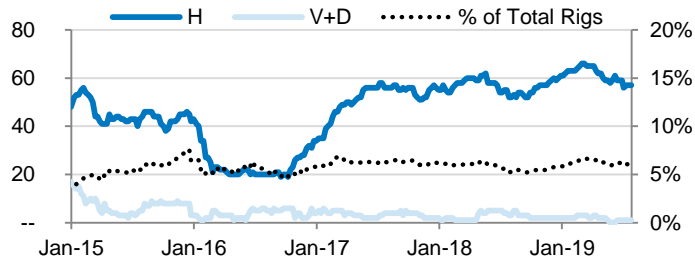
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Ark-La-Tex Snapshot

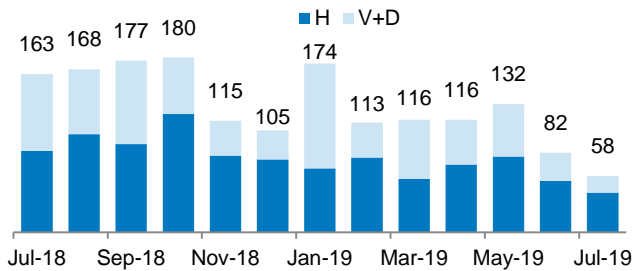
Item	Value	Wkly Change	Last Week
Rig Count	58	█ --	58
Permitting Activity	14	█ (3)	17

Item	Value	Wkly Change	Last Week
Oil Differential	\$6.25	█ ↑ \$0.75	\$5.50
Gas Differential	--	█ --	--

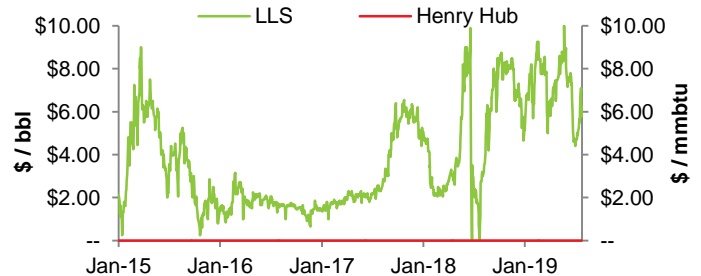
RIG COUNT



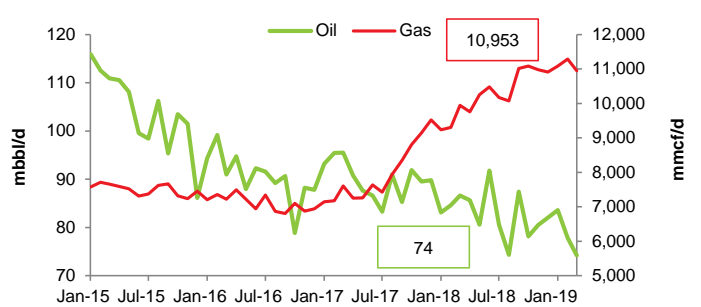
PERMITTING ACTIVITY BY MONTH



DIFFERENTIALS



GROSS PRODUCTION

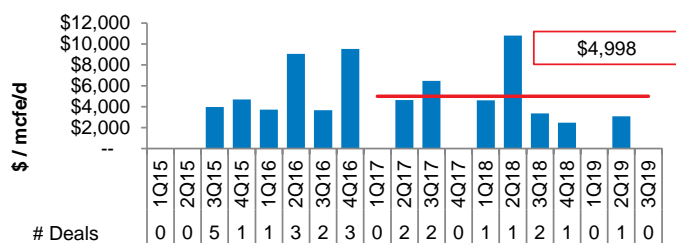


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

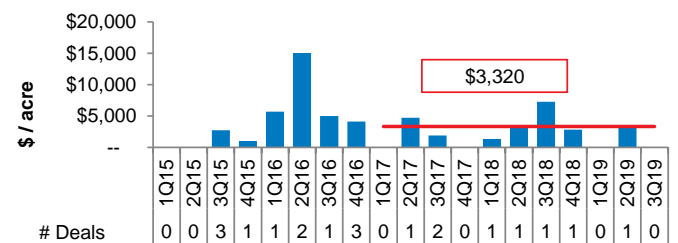
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/mcf)	Prod. Multiple (\$/mcf/d)	Net Acres (\$/acre) ⁽²⁾
19-Dec-18	Comstock	Shelby Shale LLC	6,023 net acres in Haynesville	\$21	n.a.	n.a.	\$3,404
19-Nov-18	Aethon III	QEP Resources Inc	49,700 net acres in Haynesville	\$735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



9 Source: BMO Transaction Database, Baker Hughes, BMO Commodity Products Group, Bloomberg, Drilling Info, PLS
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 3. Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.
 4. Production valued at \$3,000/mcfepd in 2014, and \$2,000/mcfepd in 2015, 2016, 2017, 2018, and 2019.

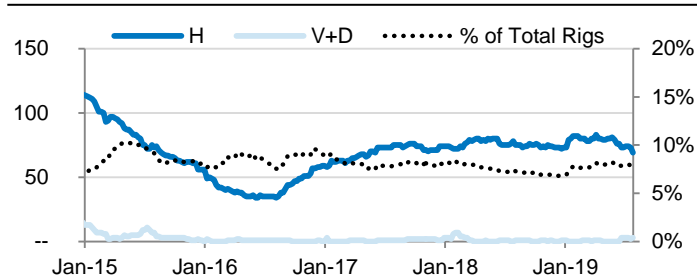
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Appalachia Snapshot

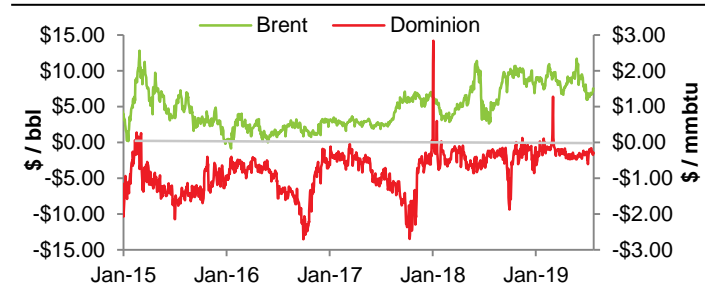
Item	Value	Wkly Change	Last Week
Rig Count	72	↓ (3)	75
Permitting Activity	21	↓ (16)	37

Item	Value	Wkly Change	Last Week
Oil Differential	\$7.55	↑ \$0.92	\$6.63
Gas Differential	(\$0.30)	↓ (\$0.14)	(\$0.17)

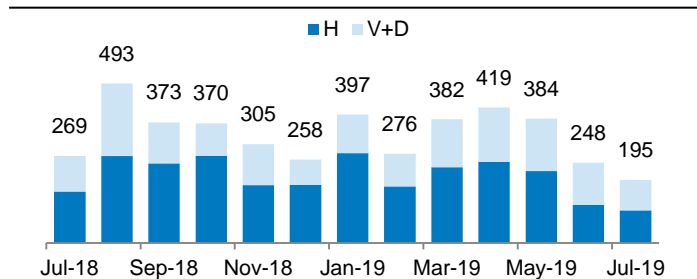
RIG COUNT



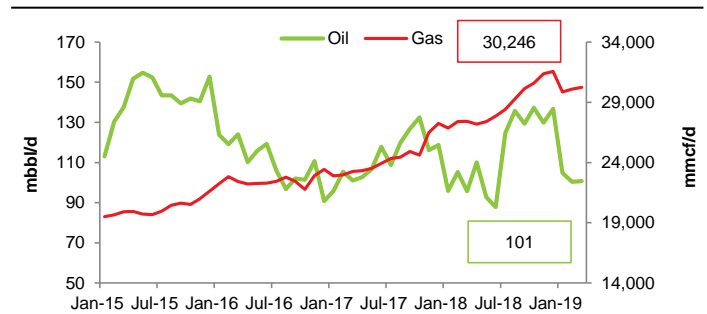
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

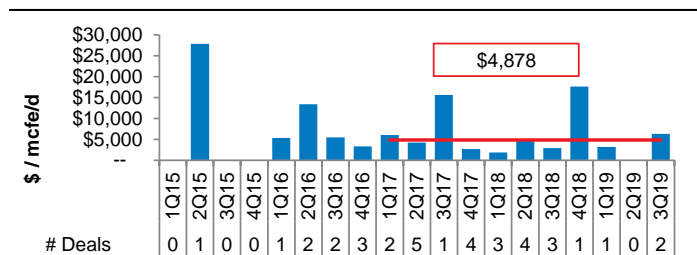


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

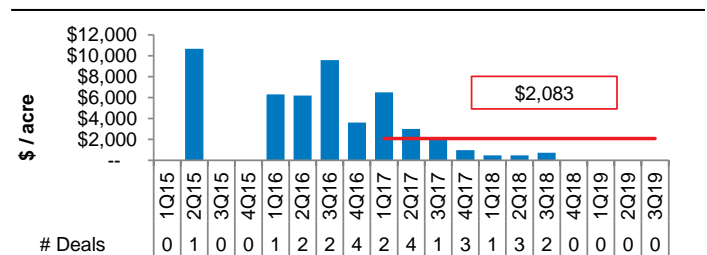
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/mcf)	Prod. Multiple (\$/mcf/d)	Net Acres (\$/acre) ⁽²⁾
24-Jul-19	Diversified Gas & Oil	EdgeMarc Energy Holdings	12,730 net acres in Ohio Utica	\$50	\$0.32	\$769	\$3,928
19-Jul-19	Multiple	Range Resources Corp	Southwest Appalachia ORRIs	\$600	n.a.	\$15,790	nmf
30-Jun-19	Undisclosed Buyer	Range Resources Corp	20,000 non-producing net acres in PA	\$34	n.a.	n.a.	\$1,700
27-Mar-19	Diversified Gas & Oil	HG Energy II LLC	Huckleberry assets in Appalachia	\$400	n.a.	\$3,227	n.a.
15-Oct-18	Undisclosed Buyer	Range Resources Corp	Overriding royalty interests in Appalachia	\$300	n.a.	\$17,649	nmf
			Mean	\$277	\$0.32	\$9,359	\$2,814
			Median	\$300	\$0.32	\$9,509	\$2,814

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.

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

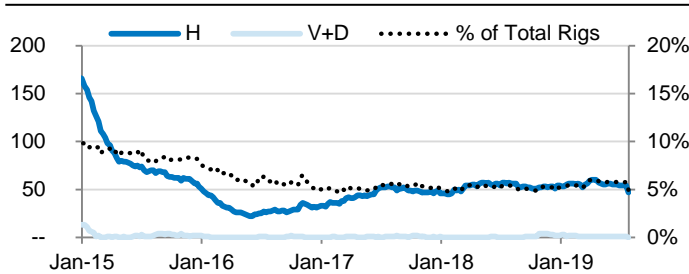
July 29, 2019

Bakken Snapshot

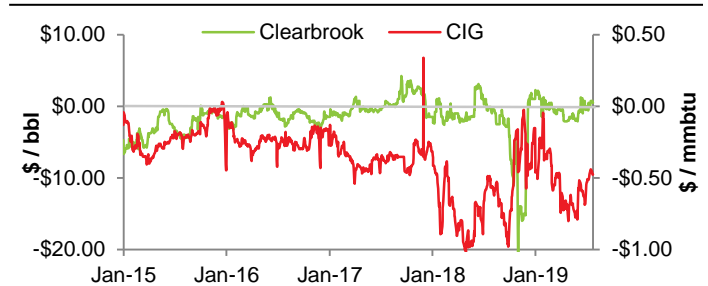
Item	Value	Wkly Change	Last Week
Rig Count	47	↓ (8)	55
Permitting Activity	23	↓ (11)	34

Item	Value	Wkly Change	Last Week
Oil Differential	\$0.50	↓ (\$0.25)	\$0.75
Gas Differential	(\$0.48)	↓ (\$0.03)	(\$0.44)

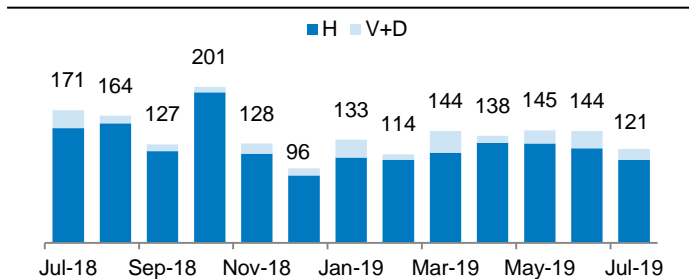
RIG COUNT



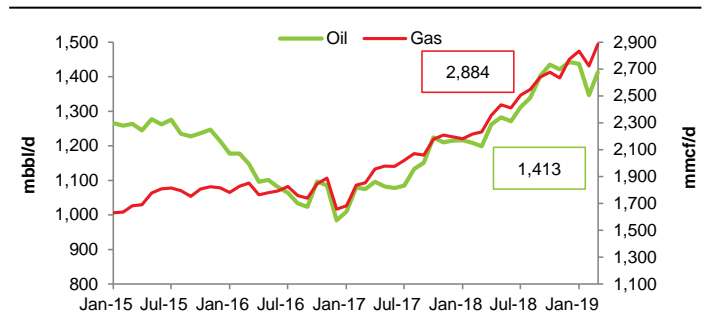
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

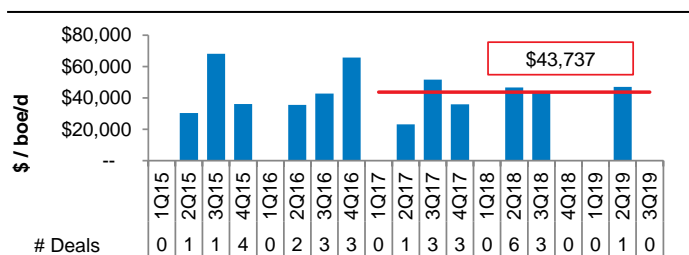


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

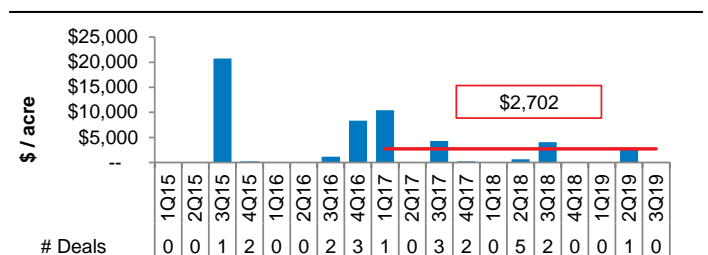
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
22-Apr-19	Northern Oil and Gas	Flywheel Energy LLC	18,000 net acres in Williston Basin	\$310	n.a.	\$47,014	\$17,238
31-Jul-18	Northern Oil and Gas	W Energy Partners	10,600 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	\$178	\$6.04	\$56,688	\$24,066
			Median	\$152	\$6.04	\$44,861	\$27,196

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)



11 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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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.

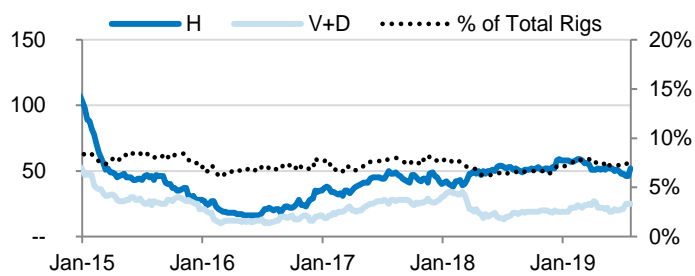
July 29, 2019

Rockies (excl. Bakken) Snapshot

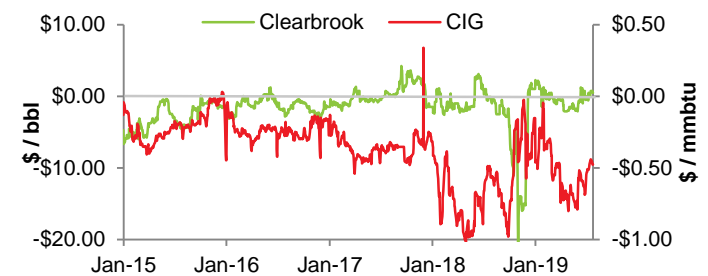
Item	Value	Wkly Change	Last Week
Rig Count	77	↑ 6	71
Permitting Activity	37	↓ (22)	59

Item	Value	Wkly Change	Last Week
Oil Differential	\$0.50	↓ (\$0.25)	\$0.75
Gas Differential	(\$0.48)	↓ (\$0.03)	(\$0.44)

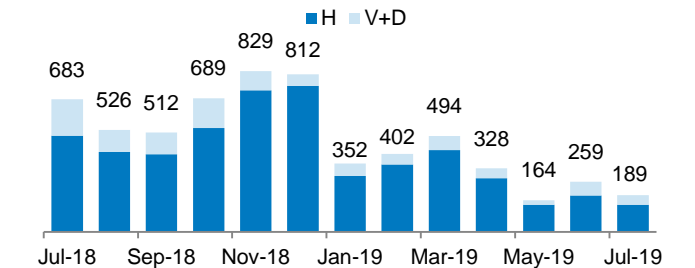
RIG COUNT



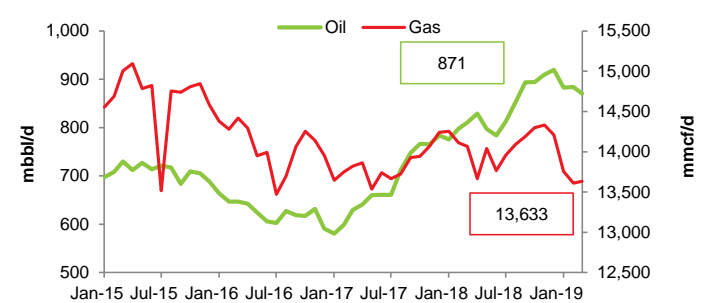
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

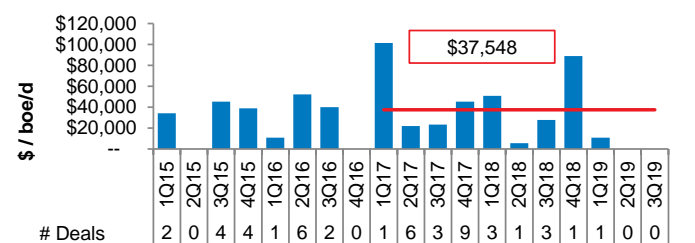


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

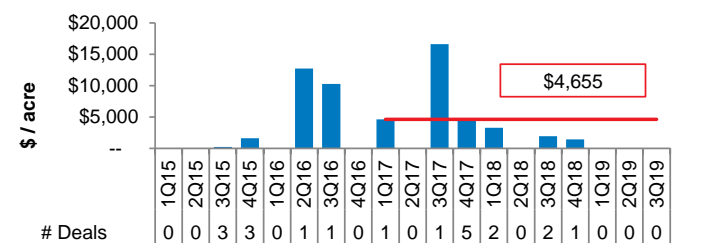
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
14-Feb-19	Undisclosed Buyer	Harvest Oil & Gas Corp	San Juan Basin assets	\$43	\$1.57	\$10,835	n.a.
31-Jan-19	Undisclosed Buyer	Extraction Oil & Gas	5,000 net acres in 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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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.

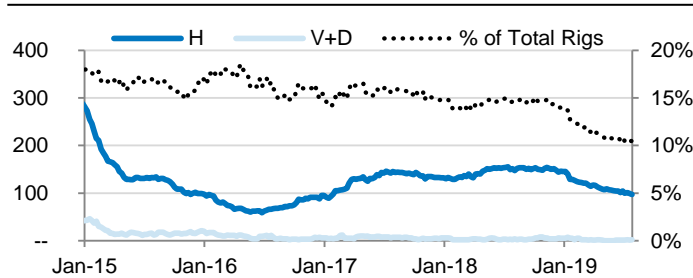
July 29, 2019

Mid-Continent Snapshot

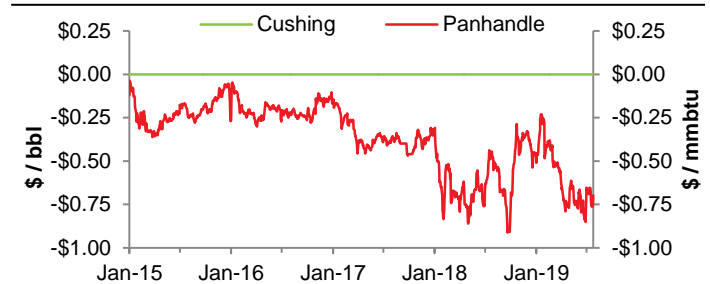
Item	Value	Wkly Change	Last Week
Rig Count	99	↓ (1)	100
Permitting Activity	68	↓ (16)	84

Item	Value	Wkly Change	Last Week
Oil Differential	--	█	--
Gas Differential	(\$0.70)	↑ \$0.07	(\$0.76)

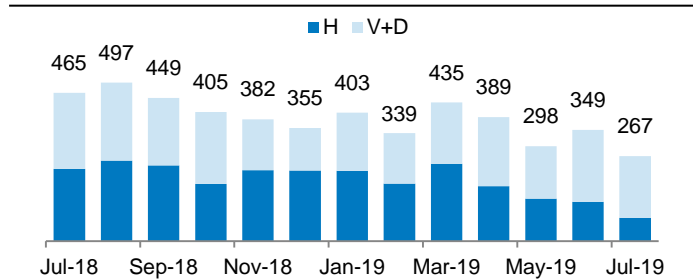
RIG COUNT



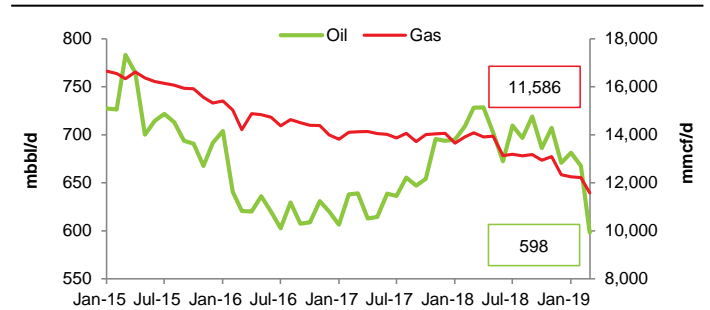
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH



GROSS PRODUCTION

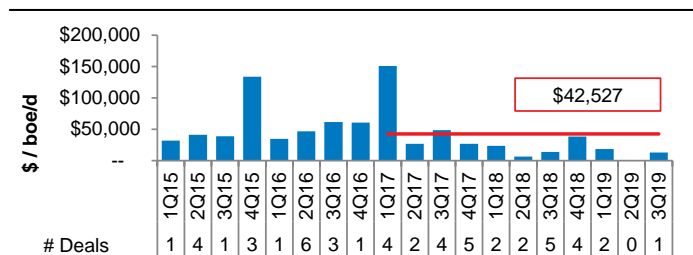


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

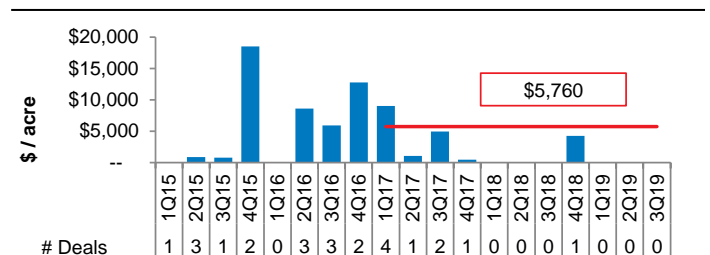
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽¹⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽²⁾
08-Jul-19	NextEra Energy Inc	Encana	140,000 net acres in Arkoma Basin	\$165	n.a.	\$12,857	\$1,179
12-Jun-19	Glendale Energy; TPG	Undisclosed Seller	Non-op interests in STACK	\$55	n.a.	n.a.	n.a.
29-Apr-19	Undisclosed Buyer	Riviera Resources Inc	Non-op Hugoton Basin	\$31	n.a.	n.a.	n.a.
31-Mar-19	Red Wolf	Apache	56k net acres in SCOOP/STACK/Merge	\$245	n.a.	\$18,421	\$4,375
19-Feb-19	Mid-Con Energy Partners	Scout Energy Partners	Caddo, Grady, and Osage cos., OK	\$28	n.a.	\$20,960	n.a.
			Mean	\$105	n.a.	\$17,413	\$2,777
			Median	\$55	n.a.	\$18,421	\$2,777

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.

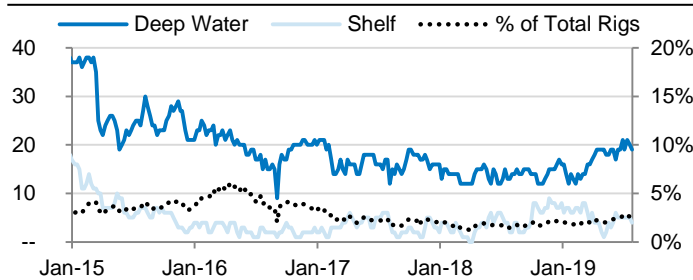
July 29, 2019

Gulf of Mexico Snapshot

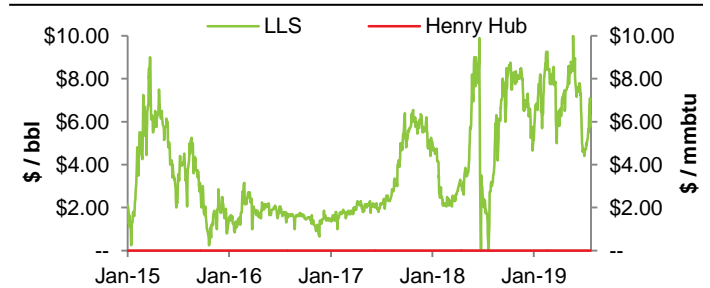
Item	Value	Wkly Change	Last Week
Rig Count	23	↓ (2)	25
Permitting Activity	18	↑ (4)	14

Item	Value	Wkly Change	Last Week
Oil Differential	\$6.25	↑ \$0.75	\$5.50
Gas Differential	--	---	--

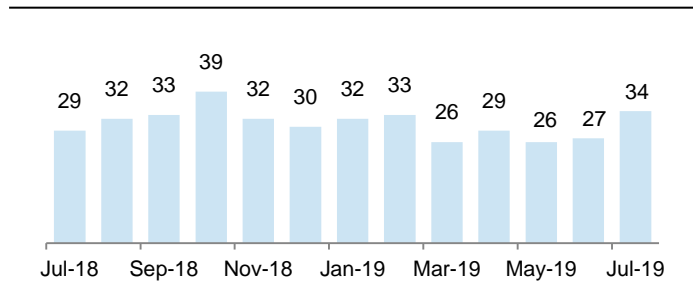
RIG COUNT



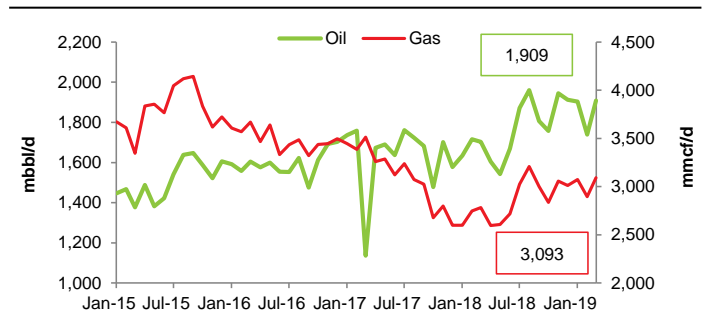
DIFFERENTIALS



PERMITTING ACTIVITY BY MONTH⁽¹⁾



GROSS PRODUCTION

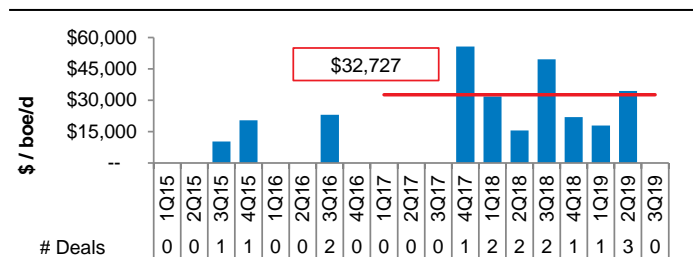


TRANSACTION ACTIVITY (EXCLUDES CORPORATE DEALS)

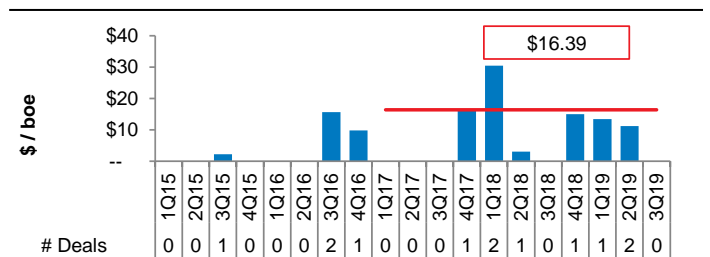
Ann'd Date	Buyer	Seller	Asset Description	Value ⁽²⁾ (\$mm)	Proved Multiple (\$/boe)	Prod. Multiple (\$/boe/d)	Net Acres (\$/acre) ⁽³⁾	
27-Jun-19	W&T Offshore	ExxonMobil	Mobile Bay assets	\$200	\$2.70	\$10,101	n.a.	
13-May-19	Equinor	Shell	22.45% WI in Caesar-Tonga Field	\$965	n.a.	\$60,313	n.a.	
23-Apr-19	Murphy	LLOG Bluewater LLC	Mississippi Canyon & Green Canyon	\$1,375	\$20.83	\$36,184	n.a.	
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.	
				Mean	\$694	\$13.00	\$29,298	n.a.
				Median	\$900	\$14.23	\$21,951	n.a.

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

TRANSACTION PRODUCTION MULTIPLES⁽⁴⁾



TRANSACTION PROVED RESERVE MULTIPLES⁽⁴⁾



14 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. Permits include directional and unidentified drilling permits. 2. Represents total enterprise value. Excludes transactions with deal value <\$20 million.
3. \$/acre multiple not adjusted for value associated with production.
4. Red line denotes average since 01-Jan-17. Calculated as the weighted average of each quarter's transactions.

July 29, 2019

[Click event to open](#)

Upcoming Industry Events

August 2019

Aug 14	IPAA Leaders in Industry Luncheon
Aug 20	IPAA Oil & Gas Overview Course
Aug 20	Houston Producers Forum Luncheon
Aug 21-22	Summer NAPE
Aug 23	ADAM-Houston Monthly Luncheon

September 2019

Sep 11	IPAA Leaders in Industry Luncheon
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 13	IPAA Leaders in Industry Luncheon
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)
Nov 20-21	11th Annual North America Assembly & Dinner

December 2019

Dec 5	177th OPEC Meeting
Dec 11	IPAA Leaders in Industry Luncheon
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 3-7	NAPE Summit Week
Feb 19	Houston Producers Forum Luncheon
Feb 18-19	DUG Rockies (Denver)

March 2020

Mar 2	Energy Capital Conference
Mar 4	Women in Energy Luncheon
Mar 3-5	IADC/SPE International Drilling Conference
Mar 9-13	Houston CERA Week
Mar 17	Houston Producers Forum Luncheon
Mar 20	ADAM-Houston Monthly Luncheon

April 2020

Apr 6-8	DUG Permian (Fort Worth)
Apr 17	ADAM-Houston Monthly Luncheon
Apr 20-22	OGIS New York
Apr 21	Houston Producers Forum Luncheon

May 2020

May 15	ADAM-Houston Monthly Luncheon
May 19	Houston Producers Forum Luncheon
May 19-20	DUG Haynesville (Shreveport)

June 2020

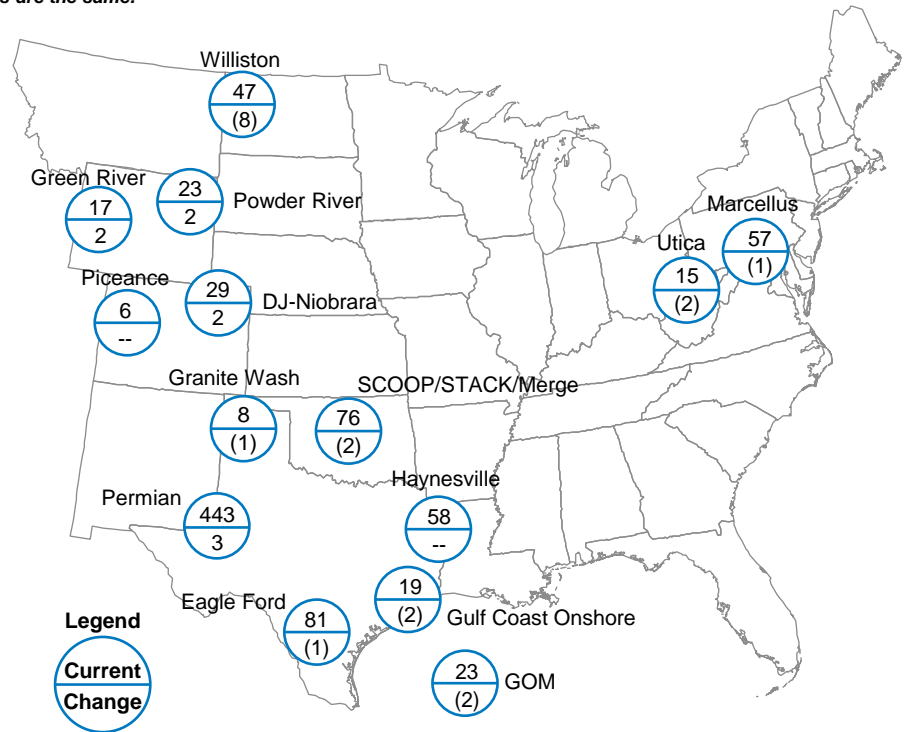
Jun 16	Houston Producers Forum Luncheon
Jun 16-18	DUG East (Pittsburgh)
Jun 19	ADAM-Houston Monthly Luncheon

July 29, 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	946	(8)	954	1,048
Oil	776	(3)	779	861
Gas	169	(5)	174	186
Miscellaneous	1	--	1	1
Directional	67	(2)	69	64
Horizontal	823	(6)	829	922
Vertical	56	--	56	62
Basin				
Permian	443	3	440	480
SCOOP/STACK/Merge	76	(2)	78	110
Granite Wash	8	(1)	9	24
Eagle Ford	81	(1)	82	97
Haynesville	58	--	58	55
Marcellus	57	(1)	58	55
Utica	15	(2)	17	23
Williston	47	(8)	55	57
DJ-Niobrara	29	2	27	26
Green River	17	2	15	17
Powder River	23	2	21	15
Piceance	6	--	6	8
Gulf Coast Onshore	19	(2)	21	20
GOM	23	(2)	25	15
Alaska	9	(1)	10	6
Other	35	3	32	40
Mid-Con	15	2	13	19
Rockies	2	--	2	3
Western	18	1	17	16
Eastern	--	--	--	2



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