



MERCER CAPITAL

# 2019 Energy Purchase Price Allocation Study

January 2020

# Table of Contents

---

About Mercer Capital	i	<b>Oilfield Services</b>	<b>12</b>
<b>Summary</b>	<b>1</b>	Key Themes	13
<b>Exploration &amp; Production</b>	<b>2</b>	Transactions	14
Key Themes	3	Intangible Allocations	15
Transactions	4	<b>Refining and Marketing</b>	<b>16</b>
Intangible Allocations	5	Key Themes	17
PP&E and Reserve Detail	6	Transactions	18
<b>Midstream</b>	<b>8</b>	Intangible Allocations	19
Key Themes	9	Appendix	20
Transactions	10	Screening Criteria & Methodology	21
Intangible Allocations	11	Disclaimers	22

# About Mercer Capital

---

## Mercer Capital is a national business valuation and financial advisory firm.

Founded in 1982, Mercer Capital offers a broad range of services including financial reporting valuation, corporate valuation, litigation and expert testimony consulting, family business advisory services, gift and estate tax valuation, M&A advisory, fairness opinions, and ESOP and ERISA valuation services.

We have provided thousands of valuation opinions for corporations of all sizes in a wide variety of industries. Our valuation opinions are well-reasoned and thoroughly documented, providing critical support for any potential engagement. In addition, our work has been reviewed and accepted by the major agencies of the federal government charged with regulating business transactions, as well as the largest accounting and law firms in the nation in connection with engagements involving their clients.

For information regarding this study, please contact one of the following professionals.



**Bryce Erickson, ASA, MRICS**  
214.468.8400  
ericksonb@mercercapital.com



**J. David Smith, ASA, CFA**  
713.239.1005  
smithd@mercercapital.com



**Alex M. Barry, CFA**  
214.468.8400  
barrya@mercercapital.com

# Mercer Capital's Core Services

---

## Valuation & Financial Opinions

- Litigation Related Expert Witness Opinions
- Valuations for Buy-Sell Agreements
- Succession & Shareholder Planning
- Valuations for Corporate Tax Planning
- Valuations for Gift & Estate Tax Planning
- ESOP & ERISA Advisory Services
- Bankruptcy-Related Valuation Services

## Transaction Advisory Services

- M&A Advisory Services
- Fairness Opinions
- Solvency Opinions
- Quality of Earnings

## Family Business Advisory Services

- Customized Board Advisory Services
- Independent Valuation Opinions
- Transaction Advisory Services
- Confidential Shareholder Surveys

## Financial Reporting Valuation Services

- Purchase Price Allocation Services
- Impairment Testing Services
- Portfolio Valuation Services
- Equity-Based Compensation Valuation

## Litigation Support Services

- Business Damages & Lost Profits
- Statutory Fair Value
- Family Law & Divorce
- Tax-Related Controversies
- Corporate Restructuring & Dissolution
- Valuation, Labor & Contract Disputes
- Initial Consultation & Analysis
- Testimony & Trial Support

# Mercer Capital Oil & Gas Industry Services

Mercer Capital provides business valuation and financial advisory services to companies throughout the U.S. in the oil & gas industry.

## Valuation & Advisory Services Provided

- Valuation of oil & gas companies
- Transaction advisory services for acquisitions and divestitures
- Valuations for purchase accounting and impairment testing
- Fairness and solvency opinions
- Litigation support for economic damages and shareholder disputes

## Industry Segments

- Exploration & Production
- Oilfield Services
- Midstream
- Refining & Marketing

## Oil & Gas Team



**Bryce Erickson, ASA, MRICS**  
214.468.8400  
ericksonb@mercercapital.com



**Don Erickson, ASA**  
214.468.8400  
ericksond@mercercapital.com



**J. Michael Sousoulas, CPA**  
901.322.9746  
sousoulasm@mercercapital.com



**J. David Smith, ASA, CFA**  
713.239.1005  
smithd@mercercapital.com



**Alex M. Barry, CFA**  
214.468.8400  
barrya@mercercapital.com



**Jake Stacy**  
214.468.8400  
stacyj@mercercapital.com

# Mercer Capital's Oil and Gas Industry Resources

## Energy Valuation Insights Blog



Visit Mercer Capital's blog, *Energy Valuation Insights*, for a weekly update on issues important to the Oil & Gas Industry.

To visit the blog or to subscribe, click [HERE](#)

## Quarterly E&P Newsletter

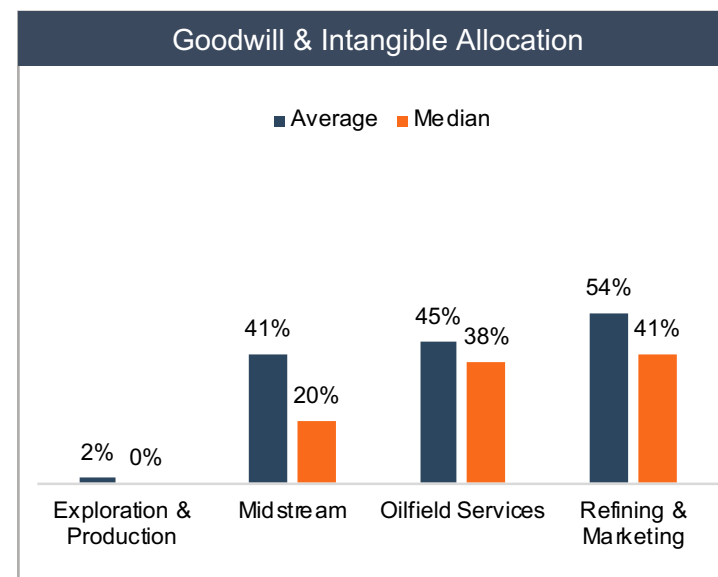
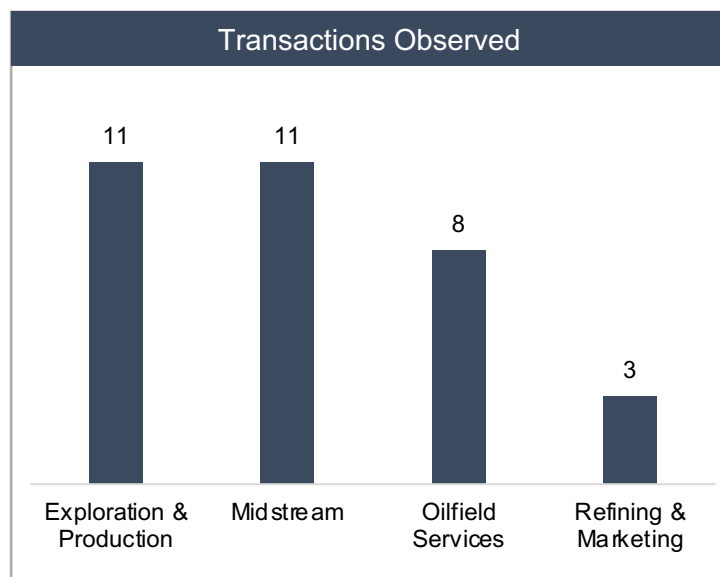


This newsletter provides an overview of the industry through supply and demand analysis, commodity pricing, and public market performance. In addition, each quarter focuses on a different region (Eagle Ford, Permian, Bakken, and Appalachia).

To view the current issue and the archives or to subscribe, click [HERE](#)

# Summary

- Intangibles comprised 84% of S&P's total market value in 2018. An analysis suggested intangible concentration for the energy sector is under half of that (36%), and this year's study generally corroborates this. Three out of the four subsectors we analyzed exceeded that percentage including midstream, oilfield services, and refining & marketing.
- M&A activity lagged in the energy sector for 2018 as compared to 2017, even as commodity price conditions improved in the year as shareholders increasingly demanded capital discipline.



# Exploration & Production

---



# Key Themes

---

## Exploration & Production

- The majority of Fair Value was encapsulated in PP&E – specifically reserve values (Level 3 inputs).
  - All 11 transactions reported reserve values
  - Seven of 11 transactions reported a split between proved (PDP, PDNP, & PUD) and unproved (Probable, Possible)
  - Of the four that did not report a split, three were offshore Gulf of Mexico acquisitions
  - Wherein a split was recorded, more reserves were proved vs. unproved on five transactions. Two transactions (Oasis/Forge and Bill Barrett/Fifth Creek) booked a higher ratio of unproved reserves
- Three transactions recorded PP&E other than reserves (Diamondback, Concho, Bill Barrett). Only one (Diamondback) was significant by acquiring midstream assets.
- Only two out of 11 had intangibles and only one recorded goodwill (Concho/RSP).
  - Concho's goodwill was realized through estimated future operational synergies through development optimization, shared infrastructure, and capital efficiencies. Concho expected to realize over \$60 million in annual corporate level savings
  - Oasis had a one year lived non-compete agreement valued at \$1 million
- The discounted cash flow method was the most cited method for all reserve categories. The market method was also cited for arriving at Fair Value for unproven reserves.

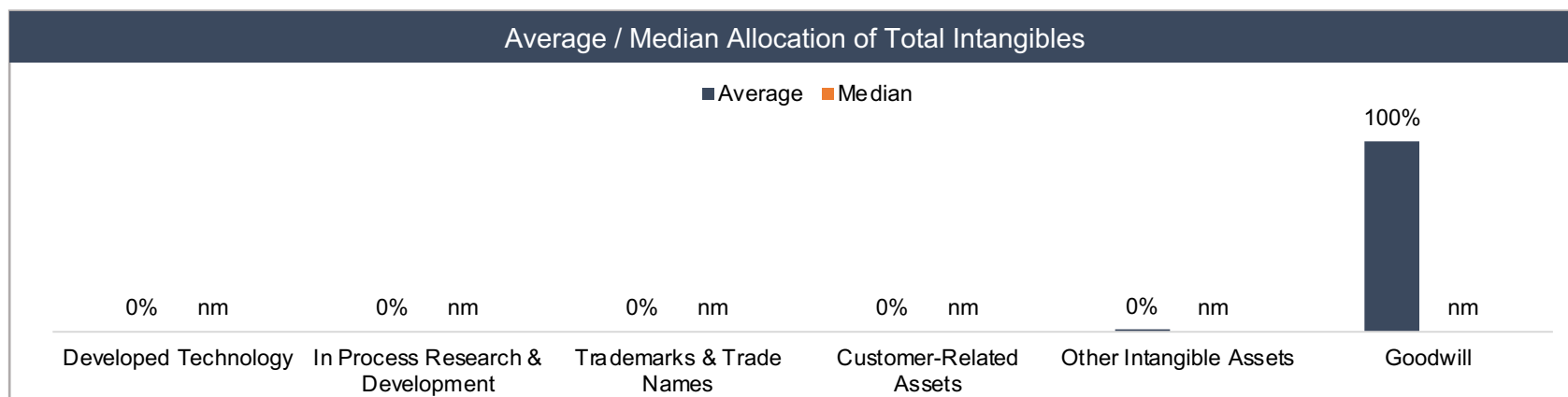
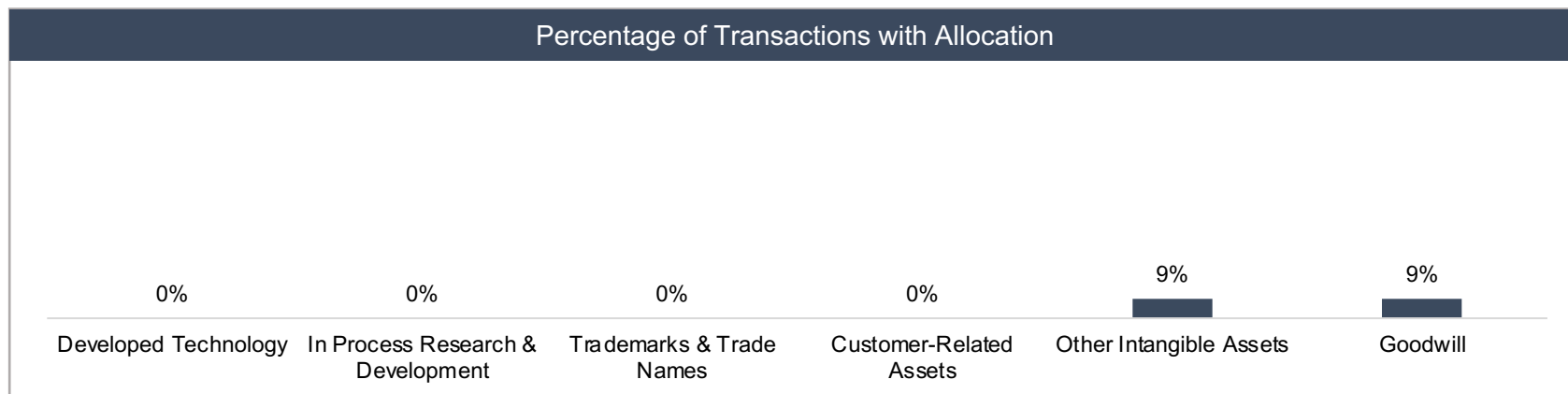
# Transactions

## Exploration & Production

Target	Acquirer	Announce Date	Basin	Purchase Consideration	Identifiable Intangibles					
					Developed Technology	In Process Research & Development	Trademarks & Trade Names	Customer- Related Assets	Other Intangible Assets	Goodwill
<b>Dollar Allocation (\$000s)</b>										
Bayswater Exploration & Production LLC	PDC Energy, Inc.	9/25/17	Denver-Julesburg	\$209,098	-	-	-	-	-	-
Stone Energy Corporation	Talos Energy, Inc.	11/21/17	Gulf of Mexico	1,275,178	-	-	-	-	-	-
Fifth Creek Energy Operating Company, LLC	Bill Barrett Corporation	12/5/17	Denver-Julesburg	732,001	-	-	-	-	-	-
Forge Energy, LLC	Oasis Petroleum Permian LLC	12/11/17	Permian	923,238	-	-	-	-	1,000	-
Hunt Oil Company	Penn Virginia Corporation	1/2/18	Eagle Ford	98,782	-	-	-	-	-	-
GulfTex Energy III, L.P. & GulfTex Energy IV, L.P.	Magnolia Oil & Gas Corporation	3/20/18	Eagle Ford	151,875	-	-	-	-	-	-
RSP Permian, Inc.	Concho Resources Inc.	3/28/18	Permian	10,103,000	-	-	-	-	-	2,224,000
Deep Gulf Energy	Kosmos Energy, Ltd.	8/6/18	Gulf of Mexico	1,516,659	-	-	-	-	-	-
Energen Corporation	Diamondback Energy, Inc.	8/14/18	Permian	10,103,671	-	-	-	-	-	-
Whistler Energy II, LLC	Talos Energy, Inc.	9/4/18	Gulf of Mexico	80,747	-	-	-	-	-	-
Petrobras Americas Inc.	Murphy Oil Corporation	10/10/18	Gulf of Mexico	1,627,093	-	-	-	-	-	-
<b>Count</b>				<b>11</b>	-	-	-	-	<b>1</b>	<b>1</b>
<b>Percentage</b>				<b>na</b>	-	-	-	-	<b>9%</b>	<b>9%</b>
<b>Average</b>				<b>\$2,438,304</b>	-	-	-	-	<b>\$91</b>	<b>\$202,182</b>
<b>Median</b>				<b>\$923,238</b>	-	-	-	-	-	-
<b>Percentage Allocation</b>										
Bayswater Exploration & Production LLC	PDC Energy, Inc.	9/25/17	Denver-Julesburg	\$209,098	-	-	-	-	-	-
Stone Energy Corporation	Talos Energy, Inc.	11/21/17	Gulf of Mexico	1,275,178	-	-	-	-	-	-
Fifth Creek Energy Operating Company, LLC	Bill Barrett Corporation	12/5/17	Denver-Julesburg	732,001	-	-	-	-	-	-
Forge Energy, LLC	Oasis Petroleum Permian LLC	12/11/17	Permian	923,238	-	-	-	-	0%	-
Hunt Oil Company	Penn Virginia Corporation	1/2/18	Eagle Ford	98,782	-	-	-	-	-	-
GulfTex Energy III, L.P. & GulfTex Energy IV, L.P.	Magnolia Oil & Gas Corporation	3/20/18	Eagle Ford	151,875	-	-	-	-	-	-
RSP Permian, Inc.	Concho Resources Inc.	3/28/18	Permian	10,103,000	-	-	-	-	-	22%
Deep Gulf Energy	Kosmos Energy, Ltd.	8/6/18	Gulf of Mexico	1,516,659	-	-	-	-	-	-
Energen Corporation	Diamondback Energy, Inc.	8/14/18	Permian	10,103,671	-	-	-	-	-	-
Whistler Energy II, LLC	Talos Energy, Inc.	9/4/18	Gulf of Mexico	80,747	-	-	-	-	-	-
Petrobras Americas Inc.	Murphy Oil Corporation	10/10/18	Gulf of Mexico	1,627,093	-	-	-	-	-	-
<b>Average</b>					-	-	-	-	<b>0%</b>	<b>2%</b>
<b>Median</b>					-	-	-	-	-	-

# Intangible Allocations

## Exploration & Production



# PP&E and Reserves Detail

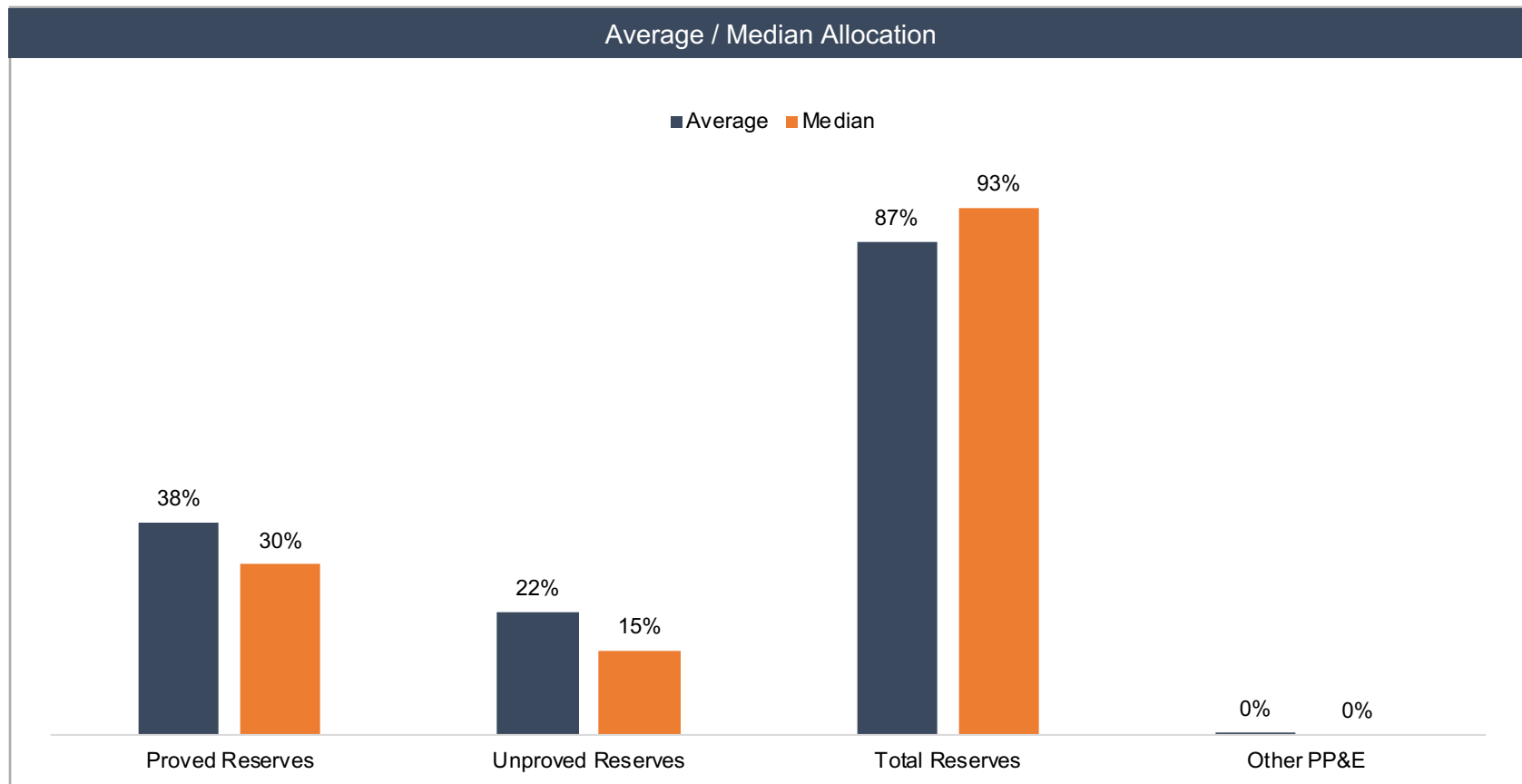
## Exploration & Production

Target	Acquirer	Basin	Purchase Consideration	Proved Reserves	Unproved Reserves	Total Reserves	Other PP&E
<b>Dollar Allocation (\$000s)</b>							
Bayswater Exploration & Production LLC	PDC Energy, Inc.	Denver-Julesburg	\$209,098	\$205,834	-	\$205,834	-
Stone Energy Corporation	Talos Energy, Inc.	Gulf of Mexico	1,275,178	-	-	883,490	-
Fifth Creek Energy Operating Company, LLC	Bill Barrett Corporation	Denver-Julesburg	732,001	105,702	609,568	715,270	931
Forge Energy, LLC	Oasis Petroleum Permian LLC	Permian	923,238	276,877	645,068	921,945	-
Hunt Oil Company	Penn Virginia Corporation	Eagle Ford	98,782	82,443	16,339	98,782	-
GulfTex Energy III, L.P. & GulfTex Energy IV, L.P.	Magnolia Oil & Gas Corporation	Eagle Ford	151,875	118,572	22,802	141,374	-
RSP Permian, Inc.	Concho Resources Inc.	Permian	10,103,000	4,055,000	3,565,000	7,620,000	5,000
Deep Gulf Energy	Kosmos Energy, Ltd.	Gulf of Mexico	1,516,659	1,037,511	298,159	1,335,670	-
Energen Corporation	Diamondback Energy, Inc.	Permian	10,103,671	-	-	9,270,692	331,840
Whistler Energy II, LLC	Talos Energy, Inc.	Gulf of Mexico	80,747	-	-	35,344	-
Petrobras Americas Inc.	Murphy Oil Corporation	Gulf of Mexico	1,627,093	-	-	1,617,052	-
<b>Count</b>			<b>11</b>	<b>7</b>	<b>6</b>	<b>11</b>	<b>3</b>
<b>Percentage</b>			<b>na</b>	<b>64%</b>	<b>55%</b>	<b>100%</b>	<b>27%</b>
<b>Average</b>			<b>\$2,438,304</b>	<b>\$534,722</b>	<b>\$468,812</b>	<b>\$2,076,859</b>	<b>\$30,706</b>
<b>Median</b>			<b>\$923,238</b>	<b>\$105,702</b>	<b>\$16,339</b>	<b>\$883,490</b>	<b>-</b>
<b>Percentage Allocation</b>							
Bayswater Exploration & Production LLC	PDC Energy, Inc.	Denver-Julesburg	\$209,098	98%	-	98%	-
Stone Energy Corporation	Talos Energy, Inc.	Gulf of Mexico	1,275,178	-	-	69%	-
Fifth Creek Energy Operating Company, LLC	Bill Barrett Corporation	Denver-Julesburg	732,001	14%	83%	98%	0%
Forge Energy, LLC	Oasis Petroleum Permian LLC	Permian	923,238	30%	70%	100%	-
Hunt Oil Company	Penn Virginia Corporation	Eagle Ford	98,782	83%	17%	100%	-
GulfTex Energy III, L.P. & GulfTex Energy IV, L.P.	Magnolia Oil & Gas Corporation	Eagle Ford	151,875	78%	15%	93%	-
RSP Permian, Inc.	Concho Resources Inc.	Permian	10,103,000	40%	35%	75%	0%
Deep Gulf Energy	Kosmos Energy, Ltd.	Gulf of Mexico	1,516,659	68%	20%	88%	-
Energen Corporation	Diamondback Energy, Inc.	Permian	10,103,671	-	-	92%	3%
Whistler Energy II, LLC	Talos Energy, Inc.	Gulf of Mexico	80,747	-	-	44%	-
Petrobras Americas Inc.	Murphy Oil Corporation	Gulf of Mexico	1,627,093	-	-	99%	-
<b>Average</b>				<b>38%</b>	<b>22%</b>	<b>87%</b>	<b>0%</b>
<b>Median</b>				<b>30%</b>	<b>15%</b>	<b>93%</b>	<b>-</b>

Note: Not all transactions included a breakout of reserves and other PP&E. If only PP&E was listed, we have assumed 100% of this value is attributable to reserves.

# PP&E and Reserves Detail (Continued)

## Exploration & Production



Note: Not all transactions included a breakout of reserves and other PP&E. If only PP&E was listed, we have assumed 100% of this value is attributable to reserves.

# Midstream

---

# Key Themes

---

## Midstream

- There were 11 transactions: six gathering/disposal (or both), three storage/terminal, one processing, and one compression transaction.
- Assets were geographic and basin-diversified.
- Fair Value mixed between PP&E and Intangibles – (Level 3 inputs).
  - All 11 transactions reported intangible assets
  - Seven of 11 transactions reported goodwill
  - Of the four that did not report goodwill, most of the intangible value was captured as customer and contract-related intangibles
  - Gathering/disposal transactions were most likely to report customer-related assets
- Reported lives for customers and contract intangibles were reported in four transactions and varied widely based on facts and circumstances (3-14 years).
- Income methods, such as multi-period excess earnings and market approach categories, were the most cited as utilized valuation techniques.

# Transactions

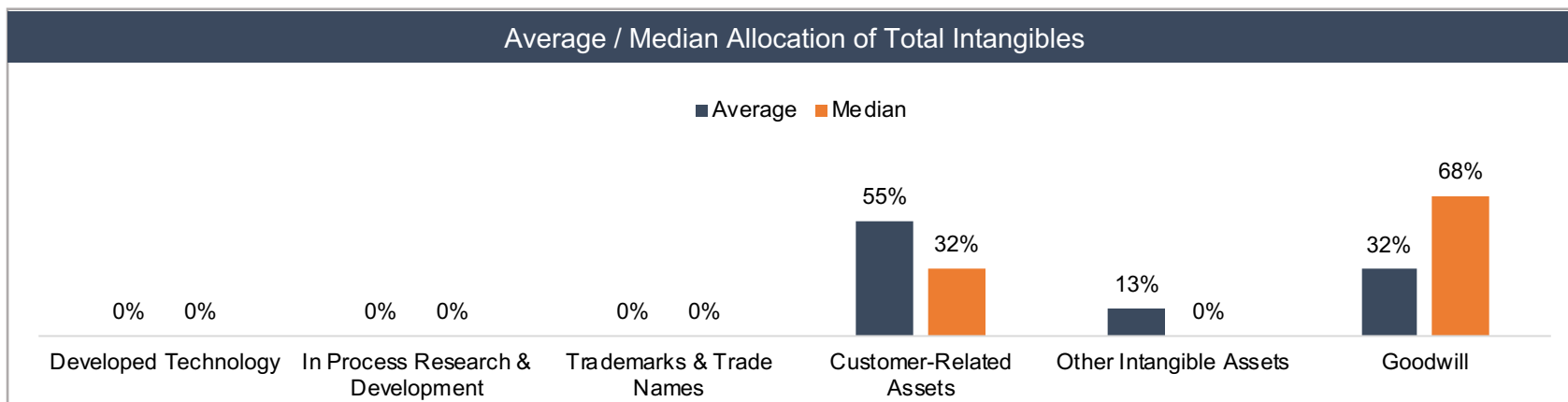
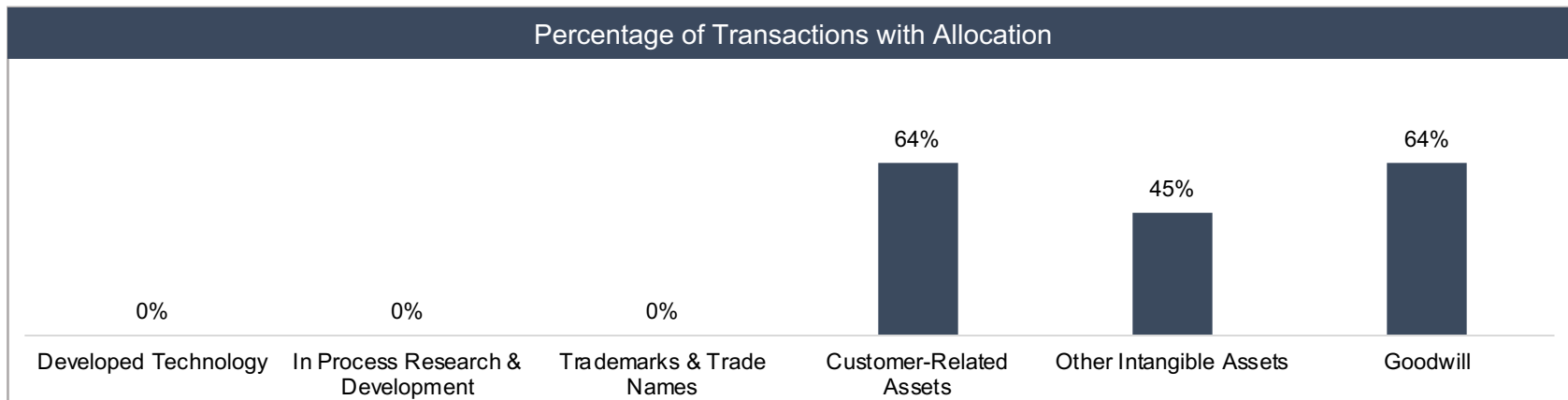
## Midstream

Target	Acquirer	Announce Date	Target Subsector	Purchase Consideration	Identifiable Intangibles					Goodwill
					Developed Technology	In Process Research & Development	Trademarks & Trade Names	Customer-Related Assets	Other Intangible Assets	
<b>Dollar Allocation (\$000s)</b>										
Black Diamond	Noble Midstream Partners LP	12/12/17	Gathering/Disposal	\$680,645	-	-	-	\$339,760	-	\$109,734
CONE Gathering LLC	CNX Resources Corporation	12/15/17	Gathering/Disposal	2,000,789	-	-	-	128,781	-	796,359
USA Compression GP, LLC	Energy Transfer LP	1/16/18	Compression	2,721,000	-	-	-	-	222,000	366,000
BNN Colorado Water, LLC	Tallgrass Energy LP	2/7/18	Gathering/Disposal	30,510	-	-	-	7,922	-	-
BNN North Dakota, LLC	Tallgrass Energy LP	2/7/18	Gathering/Disposal	98,224	-	-	-	46,800	-	-
Delaware Processing Joint Venture	Enterprise Products Partners LP	3/29/18	Processing	303,300	-	-	-	9,900	82,600	-
Knoxville Terminals	PBF Logistics LP	4/16/18	Storage/Terminal	58,356	-	-	-	-	5,900	6,332
East Coast Storage Assets Acquisition	PBF Energy Inc.	7/17/18	Storage/Terminal	129,912	-	-	-	-	13,300	-
Pin Oak Holdings, LLC	MPLX LP	9/26/18	Storage/Terminal	475,000	-	-	-	-	9,000	126,000
Velocity Holdings, LLC	Enable Midstream Partners LP	10/19/18	Gathering/Disposal	473,000	-	-	-	259,000	-	86,000
NGL Water Solutions Bakken, LLC	Tallgrass Energy LP	11/12/18	Gathering/Disposal	91,949	-	-	-	54,000	-	17,145
<b>Count</b>				<b>11</b>	-	-	-	<b>7</b>	<b>5</b>	<b>7</b>
<b>Percentage</b>				<b>na</b>	-	-	-	<b>64%</b>	<b>45%</b>	<b>64%</b>
<b>Average</b>				<b>\$642,062</b>	-	-	-	<b>\$76,924</b>	<b>\$30,255</b>	<b>\$137,052</b>
<b>Median</b>				<b>\$303,300</b>	-	-	-	<b>\$9,900</b>	-	<b>\$17,145</b>
<b>Percentage Allocation</b>										
Black Diamond	Noble Midstream Partners LP	12/12/17	Gathering/Disposal	\$680,645	-	-	-	50%	-	16%
CONE Gathering LLC	CNX Resources Corporation	12/15/17	Gathering/Disposal	2,000,789	-	-	-	6%	-	40%
USA Compression GP, LLC	Energy Transfer LP	1/16/18	Compression	2,721,000	-	-	-	-	8%	13%
BNN Colorado Water, LLC	Tallgrass Energy LP	2/7/18	Gathering/Disposal	30,510	-	-	-	26%	-	-
BNN North Dakota, LLC	Tallgrass Energy LP	2/7/18	Gathering/Disposal	98,224	-	-	-	48%	-	-
Delaware Processing Joint Venture	Enterprise Products Partners LP	3/29/18	Processing	303,300	-	-	-	3%	27%	-
Knoxville Terminals	PBF Logistics LP	4/16/18	Storage/Terminal	58,356	-	-	-	-	10%	11%
East Coast Storage Assets Acquisition	PBF Energy Inc.	7/17/18	Storage/Terminal	129,912	-	-	-	-	10%	-
Pin Oak Holdings, LLC	MPLX LP	9/26/18	Storage/Terminal	475,000	-	-	-	-	2%	27%
Velocity Holdings, LLC	Enable Midstream Partners LP	10/19/18	Gathering/Disposal	473,000	-	-	-	55%	-	18%
NGL Water Solutions Bakken, LLC	Tallgrass Energy LP	11/12/18	Gathering/Disposal	91,949	-	-	-	59%	-	19%
<b>Average</b>					-	-	-	<b>22%</b>	<b>5%</b>	<b>13%</b>
<b>Median</b>					-	-	-	<b>6%</b>	-	<b>13%</b>



# Intangible Allocations

## Midstream



# Oilfield Services

---

# Key Themes

## Oilfield Services

- As one would expect, Oilfield Services allocations are significantly more weighted toward goodwill and other intangible assets compared to the fixed asset and/or PP&E intensive E&P and Midstream industries. The overall allocation to goodwill and other intangible assets is fairly in line with that of the Refining & Marketing industry, with an average intangible/goodwill allocation of 45%.
- Logically tied to the above observation, the Oilfield Services allocations had high percentage occurrences of a wide variety of intangible assets groupings – led by goodwill and customer relationships (both at 88%) and trademarks/trade names (75%), with other intangible assets, developed technology, and in-process research and development (IPR&D) rounding out the allocation with instances of 50%, 50%, and 25%, respectively.
- Other intangible assets included a mix of contracts, software, and non-compete agreements.
- As a percentage of intangible assets, goodwill led with an average of 65%, with customer relationships coming in second at 21%. The remaining intangible asset categories (developed technology, IPR&D, trademarks/trade names, and other intangible assets such as contracts, software, and non-compete agreements) were all below 10% of total intangible assets, with only trademarks/trade names exceeding 5% of total intangible assets.
- Regarding remaining useful lives, the separately identified intangible assets showed reasonable consistency:
  - Customer relationships weighted average remaining lives ranged from 10 - 17 years with an average of 15 years
  - Developed technology remaining useful lives ranged from 10 - 15 years, other than a single outlier of 27 years
  - Trademarks/trade names were assigned useful lives of 10 - 12 years, other than one at 20 years and one with an indicated indefinite life

# Transactions

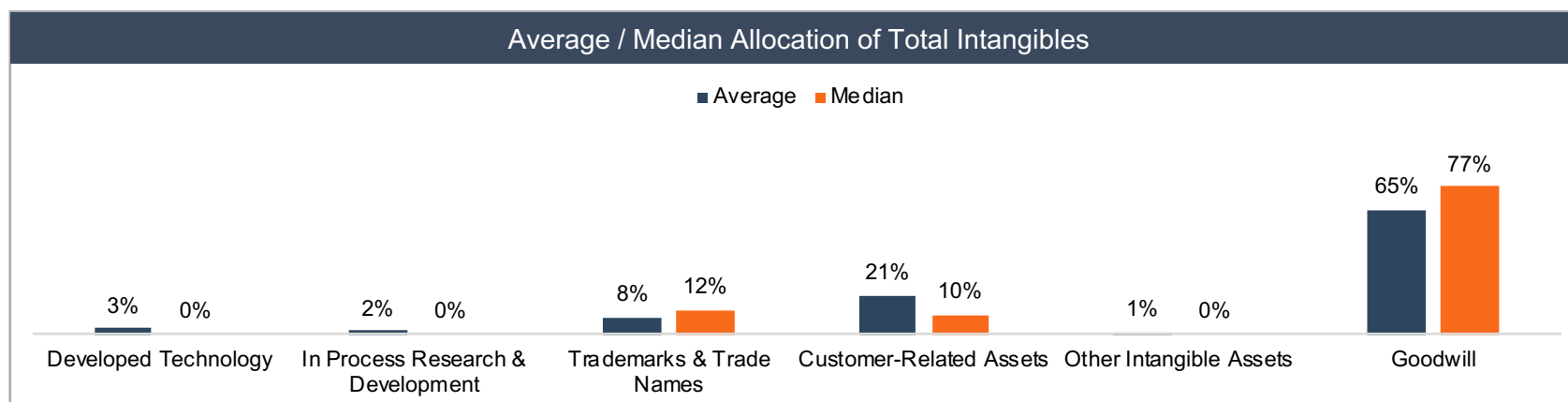
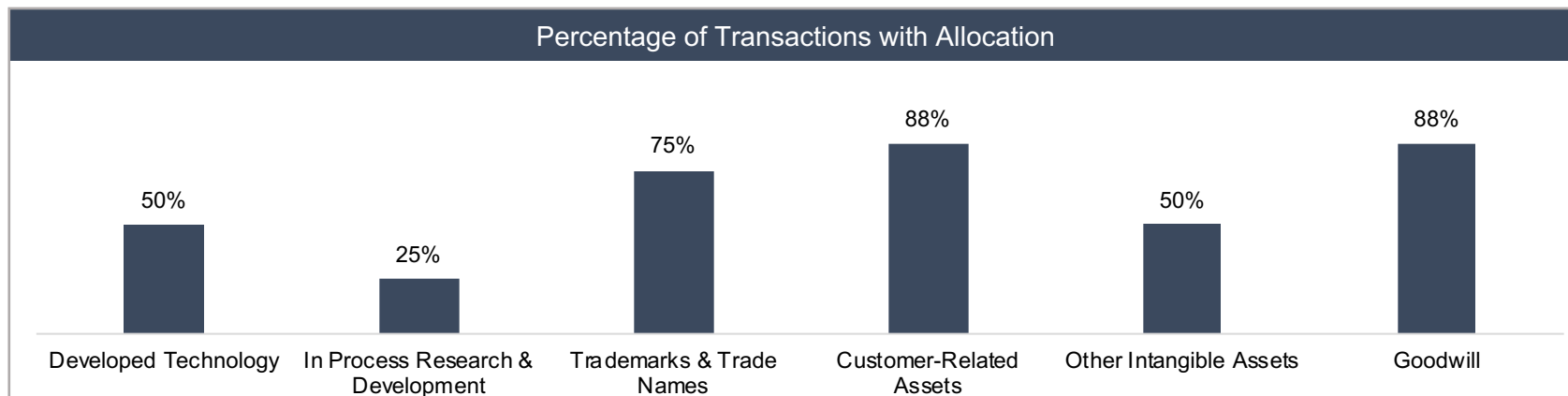
## Oilfield Services

Target	Acquirer	Announce Date	Target Subsector	Purchase Consideration	Identifiable Intangibles					Goodwill
					Developed Technology	In Process Research & Development	Trademarks & Trade Names	Customer-Related Assets	Other Intangible Assets	
<b>Dollar Allocation (\$000s)</b>										
GE Oil & Gas	Baker Hughes Company	10/31/16	Diversified	\$32,004,000	\$529,000	\$70,000	\$2,145,000	\$1,240,000	\$21,000	\$13,963,000
Magnetic Variation Services, LLC	Helmerich & Payne, Inc.	12/8/17	Surveying	48,790	ua	-	ua	ua	28,700	17,791
GEODynamics	Oil States International, Inc.	12/12/17	Completion/Intervention	662,792	48,000	-	40,000	105,000	13,000	357,502
Chicago Bridge & Iron Company N.V.	McDermott International, Inc.	12/18/17	EPC	8,953,000	-	514,000	428,000	129,000	-	4,822,000
Falcon Flowback Services, LLC	Oil States International, Inc.	2/28/18	Flowback/Well Testing	94,945	-	-	4,771	18,254	1,226	21,953
EP Mineral Holdings, Inc.	U.S. Silica Holdings, Inc.	3/23/18	Sand	905,875	2,900	-	38,050	7,370	-	150,628
GulfMark Offshore, Inc.	Tidewater Inc.	7/16/18	Offshore Service Vessels	439,422	-	-	-	-	-	-
Pro Well Testing and Wireline, Inc.	Select Energy Services, Inc.	11/20/18	Flowback/Well Testing	12,446	-	-	-	3,000	-	982
<b>Count</b>				<b>8</b>	<b>4</b>	<b>2</b>	<b>6</b>	<b>7</b>	<b>4</b>	<b>7</b>
<b>Percentage</b>				<b>na</b>	<b>50%</b>	<b>25%</b>	<b>75%</b>	<b>88%</b>	<b>50%</b>	<b>88%</b>
<b>Average</b>				<b>\$5,390,159</b>	<b>\$82,843</b>	<b>\$73,000</b>	<b>\$379,403</b>	<b>\$214,661</b>	<b>\$7,991</b>	<b>\$2,416,732</b>
<b>Median</b>				<b>\$551,107</b>	<b>-</b>	<b>-</b>	<b>\$38,050</b>	<b>\$18,254</b>	<b>\$613</b>	<b>\$86,291</b>
<b>Percentage Allocation</b>										
GE Oil & Gas	Baker Hughes Company	10/31/16	Diversified	\$32,004,000	2%	0%	7%	4%	0%	44%
Magnetic Variation Services, LLC	Helmerich & Payne, Inc.	12/8/17	Surveying	48,790	na	-	na	na	na	36%
GEODynamics	Oil States International, Inc.	12/12/17	Completion/Intervention	662,792	7%	-	6%	16%	2%	54%
Chicago Bridge & Iron Company N.V.	McDermott International, Inc.	12/18/17	EPC	8,953,000	-	6%	5%	1%	-	54%
Falcon Flowback Services, LLC	Oil States International, Inc.	2/28/18	Flowback/Well Testing	94,945	-	-	5%	19%	1%	23%
EP Mineral Holdings, Inc.	U.S. Silica Holdings, Inc.	3/23/18	Sand	905,875	0%	-	4%	1%	-	17%
GulfMark Offshore, Inc.	Tidewater Inc.	7/16/18	Offshore Service Vessels	439,422	-	-	-	-	-	-
Pro Well Testing and Wireline, Inc.	Select Energy Services, Inc.	11/20/18	Flowback/Well Testing	12,446	-	-	-	24%	-	8%
<b>Average</b>					<b>1%</b>	<b>1%</b>	<b>4%</b>	<b>9%</b>	<b>0%</b>	<b>29%</b>
<b>Median</b>					<b>-</b>	<b>-</b>	<b>5%</b>	<b>4%</b>	<b>-</b>	<b>30%</b>

Note: In table above, "ua" indicates that value was allocated to an intangible category, but the amount is unknown. We have included these allocations in the number of transactions with an intangible category, but the value of these identifiable intangibles are captured in "Other Intangible Assets."

# Intangible Allocations

## Oilfield Services



# Refining & Marketing

---

# Key Themes

---

## Refining & Marketing

- There was minimal transaction activity (three) in the Refining & Marketing industry segment in 2018.
  - Marathon purchased Andeavor (goodwill was 85% of intangibles)
  - Par Pacific Holdings purchased CHS (goodwill was 100% of intangibles)
  - Valero Energy purchased Pure Biofuels (goodwill was 43% of intangibles)
- The largest was Marathon purchasing Andeavor following the prior combination of Western Refining and Tesoro to form Andeavor in late 2016.
  - Transaction size and compounding effect of business combinations of brands leads to more identifiable intangibles
- Each transaction included goodwill.
  - Expected future earnings particularly related to ability to increase refining capacity
  - Optimization of crude purchasing
  - Synergies and diversification of additional locations
- Two transactions included intangibles related to customer contracts and relationships.
  - Downstream players rely on upstream and midstream for feedstock and the ability to obtain this at advantageous prices is crucial to refining

# Transactions

## Refining & Marketing

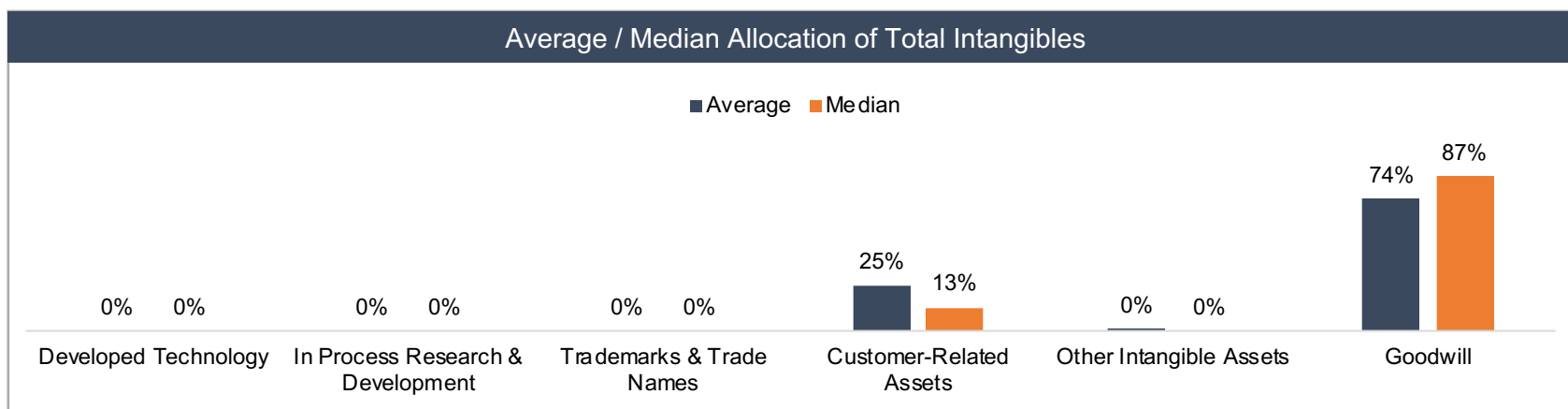
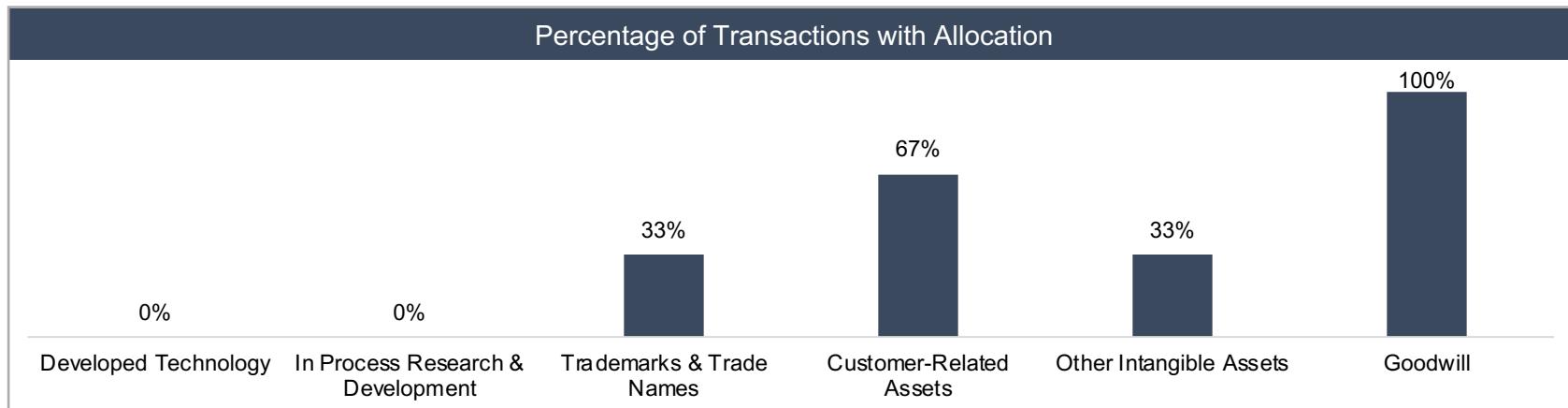
Target	Acquirer	Announce Date	Target Subsector	Purchase Consideration	Identifiable Intangibles					Goodwill
					Developed Technology	In Process Research & Development	Trademarks & Trade Names	Customer- Related Assets	Other Intangible Assets	
<b>Dollar Allocation (\$000s)</b>										
CHS, Inc.	Par Pacific Holdings, Inc.	1/9/18	C-Stores	\$81,021	-	-	-	-	-	\$46,210
Andeavor	Marathon Petroleum Corporation	4/30/18	Refining	45,518,000	-	-	ua	2,500,000	300,000	16,314,000
Pure Biofuels	Valero Energy Corporation	5/14/18	Terminal/Logistics	726,000	-	-	-	260,000	-	200,000
<b>Count</b>				<b>3</b>	-	-	<b>1</b>	<b>2</b>	<b>1</b>	<b>3</b>
<b>Percentage</b>				<b>na</b>	-	-	<b>33%</b>	<b>67%</b>	<b>33%</b>	<b>100%</b>
<b>Average</b>				<b>\$15,441,674</b>	-	-	-	<b>\$920,000</b>	<b>\$100,000</b>	<b>\$5,520,070</b>
<b>Median</b>				<b>\$726,000</b>	-	-	-	<b>\$260,000</b>	-	<b>\$200,000</b>
<b>Percentage Allocation</b>										
CHS, Inc.	Par Pacific Holdings, Inc.	1/9/18	C-Stores	\$81,021	-	-	-	-	-	57%
Andeavor	Marathon Petroleum Corporation	4/30/18	Refining	45,518,000	-	-	na	5%	na	36%
Pure Biofuels	Valero Energy Corporation	5/14/18	Terminal/Logistics	726,000	-	-	-	36%	-	28%
<b>Average</b>					-	-	-	<b>14%</b>	-	<b>40%</b>
<b>Median</b>					-	-	-	<b>5%</b>	-	<b>36%</b>

Note: In table above, "ua" indicates that value was allocated to an intangible category, but the amount is unknown. We have included these allocations in the number of transactions with an intangible category, but the value of these identifiable intangibles are captured in "Other Intangible Assets."



# Intangible Allocations

## Refining & Marketing



# Appendix

---

# Screening Criteria & Methodology

---

- Company universe based on constituents of the following indices:
  - S&P Oil & Gas Exploration & Production Industry Index (SPSIOP)
  - S&P Oil & Gas Equipment Select Industry Index (SPSIOS)
  - Alerian Midstream Energy Index (AMNA)
- Reviewed 2018 10-K filings for U.S. publicly listed energy companies for disclosures around purchase price allocations
- Purchase consideration defined as total assets acquired (i.e., not net of liabilities assumed)

# Disclaimers

---

© 2020 Mercer Capital. All rights reserved. This material may not be reproduced in any format by any means or redistributed without the prior written consent of Mercer Capital.

Mercer Capital gathers its data from sources it considers reliable; however, it does not guarantee the accuracy or completeness of the information provided within this presentation. The material presented reflects information known to the authors at the time this presentation was written, and this information is subject to change. Mercer Capital makes no representations or warranties, expressed or implied, regarding the accuracy of this material. This presentation does not constitute advice or a recommendation, offer, or solicitation with respect to the securities of any company discussed herein, is not intended to provide information upon which to base an investment decision, and should not be construed as such.

A black and white photograph of an oil pumpjack in a field. The pumpjack is the central focus, with its long arm and counterweight visible. The background shows a flat landscape with some vegetation and a utility pole with a cross-arm. The sky is overcast with some clouds. The image is partially obscured by a dark blue diagonal shape that covers the bottom left and right corners.

# Mercer Capital

[www.mercercapital.com](http://www.mercercapital.com)

