

# Energy Perspectives



Third Quarter 2014

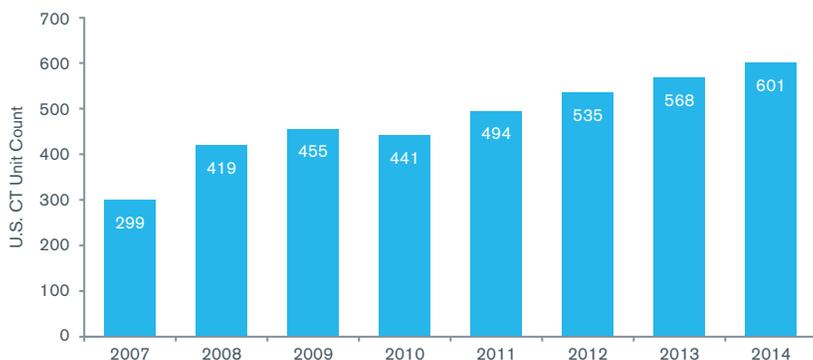
## Segment Snapshot – The Shift from Coil Tubing to Snubbing in Completions

*This edition of Energy Perspectives takes a look at the growing use of snubbing units for completions, which are increasingly replacing coil tubing units.*

The service intensity required to complete wells and enhance production in shale gas and tight oil plays contributed to significant growth in coiled tubing over the past decade, as evident by the chart below. The versatility, efficiency and cost effectiveness of Coiled Tubing (“CT”) units caused operators to turn to them for faster well completions, in addition to their historical fit for interventions. This expanded functionality helped lead to a boom in CT, with domestic unit counts doubling between 2007 and 2014.

Similarly, between 2007 and 2011 service days for CT doubled, with day rates reaching as high as \$80,000 due to the tight market conditions. Beginning in 2012, however, service days for CT dropped dramatically and remained at this lower level (see chart on the following page). Strong orders for new CT equipment, placed when CT service days were still climbing, led to equipment supply hitting the market as demand retracted, creating significant overcapacity in CT. Pricing for CT services has declined accordingly, and hovers well below peaks from three years ago. Projections for CT service days show modest

### Growth in Coiled Tubing



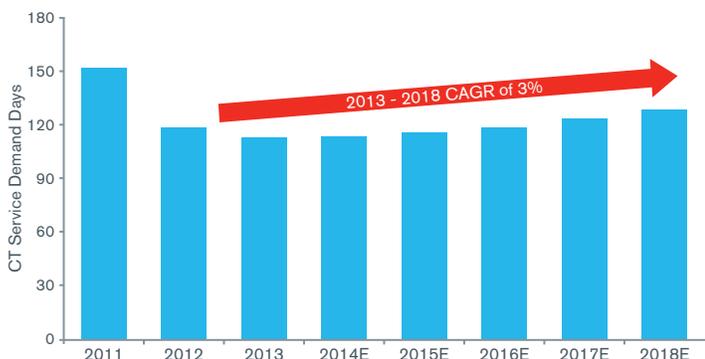
Source: ICoTA

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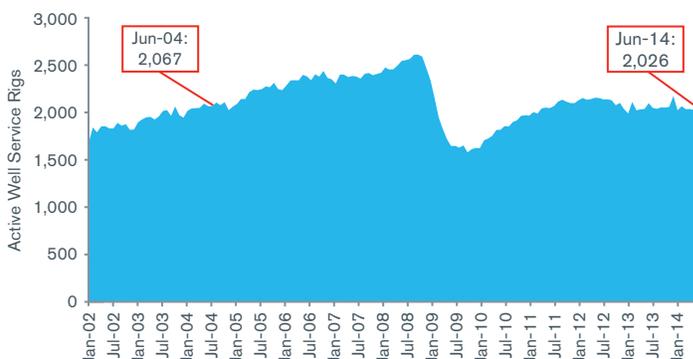
## Segment Snapshot – The Shift from Coil Tubing to Snubbing in Completions (cont.)

Coiled Tubing Service Days



Source: E&P Magazine

Number of Active Service Rigs



Source: Guiberson

Why did the spigot turn off so quickly for CT? An increase in the efficiency of fracking may be part of the answer, as is the higher supply of CT units, which eliminated the need for stand-by arrangements. But an additional and meaningful reason is the growing use of snubbing as a replacement for CT in completions.

We may now be in the early stages of a similar trajectory in snubbing units and demand that CT experienced years ago. The continued growth in lateral lengths of horizontal wells is forcing companies to shy away from CT and turn to stand-alone or rig-assist snubbing units. CT has limitations in reach – highway safety weight restrictions effectively cap the length/diameter of the tube that can be delivered to well sites. So for longer laterals, CT either (i) is not long enough to reach the total depth of the well, or (ii) is not strong enough to supply the needed weight on the bit without buckling.

Enter snubbing units. Traditionally, snubbing has been used when operators need to service a well without killing it. Snubbing units provide pressure on the jointed pipe being

inserted into the well, forcing the pipe deeper into the live well and overcoming the natural surface pressure of the well.

In completions of wells with long laterals, jointed pipe provides a significant advantage over CT because it is stronger than tubing, and can reach the outer edges of the well without buckling. Because the pipe is transported to the well site in segments, there is no limit on the number of joints that can be delivered to the well. Highway weight restrictions are irrelevant. And because the wells are lateral wells, gravity is not an effective means of inserting pipe, so workover units are not useful. Rather, pressure must be applied to push the pipe out into the well, and hence the need for snubbing units in completions.

Snubbing has likely been underinvested in for years. Though data for snubbing on a stand-alone basis is difficult to gather, the trend that exists in overall workover rigs (evidenced in the chart above) serves as a proxy. The number of active service rigs since 2011 is flat to down, and sits at a similar level to 2004, a decade ago.

As laterals continue to extend and snubbing becomes increasingly prevalent in completions demand for snubbing may pick up significantly. Incumbent snubbing providers may have a window for generating meaningful profit as rig utilization and pricing improve. As typically happens in the oilfield, new entrants will ultimately expand the rig supply to the point that we reach a state of excess capacity, and pricing will drop accordingly. But in the meantime, we may see excess profits from snubbing over the next several years.

#1 U.S. Fairness Opinion Provider

#4 U.S. Bankruptcy Advisor

#5 U.S. Middle-Market M&A Advisor

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Valuation and Corporate Finance Advisors

Source: Fairness opinion rankings as published in Thomson Reuters' "Full Year 2013 Mergers and Acquisitions Review."  
M&A rankings calculated by number of deals from Thomson Financial Securities full year 2013 data. Middle-market M&A deals < \$250 million. Bankruptcy case ranking provided by The Deal full year 2013 league table.

## Energy Market Transaction

### Majority Recapitalization



has completed a majority recapitalization by



## Duff & Phelps Advises Surveying And Mapping, Inc. in a Majority Recapitalization with Austin Ventures

On February 28, 2014, Surveying And Mapping, Inc., a leading, independent, full-service provider of land surveying and mapping capabilities for oil and gas, electric energy, and transportation clients, completed a majority recapitalization with Austin Ventures.

### About Surveying And Mapping, Inc.

Founded in 1994 in Austin, Texas, Surveying And Mapping, Inc. ("SAM" or the "Company") is a leading independent full-service provider of land surveying and mapping capabilities for clients in the domestic infrastructure industry. Supported by state-of-the-art technology, the Company offers end-to-end geospatial solutions through an extensive suite of services, including professional land surveying, hydrographic surveying, aerial mapping and photogrammetry, airborne, mobile, and terrestrial HDS LiDAR, subsurface utility engineering, utility coordination, geographic information system (GIS) asset inventory and management, as well as construction-phase services through SAM-Construction

Services, Inc. The Company delivers its services to clients across a wide range of attractive, growth-oriented end markets, including oil and gas, electric energy, transportation, railway, water/wastewater, and other infrastructure-related industries.

### About Austin Ventures

Austin Ventures ("AV") has worked with talented entrepreneurs to build valuable companies for over 30 years. With \$3.9 billion of capital raised, AV is the most active venture capital firm in Texas and one of the most established in the nation. AV invests in early stage and middle-market companies, and its strategy is to partner with talented executives and entrepreneurs to build industry-leading companies predominantly in Texas.

### Transaction Role

Duff & Phelps acted as the exclusive financial advisor to Surveying And Mapping, Inc. in connection with the majority recapitalization by Austin Ventures.

## Public Markets Update as of August 22, 2014<sup>(1)</sup>

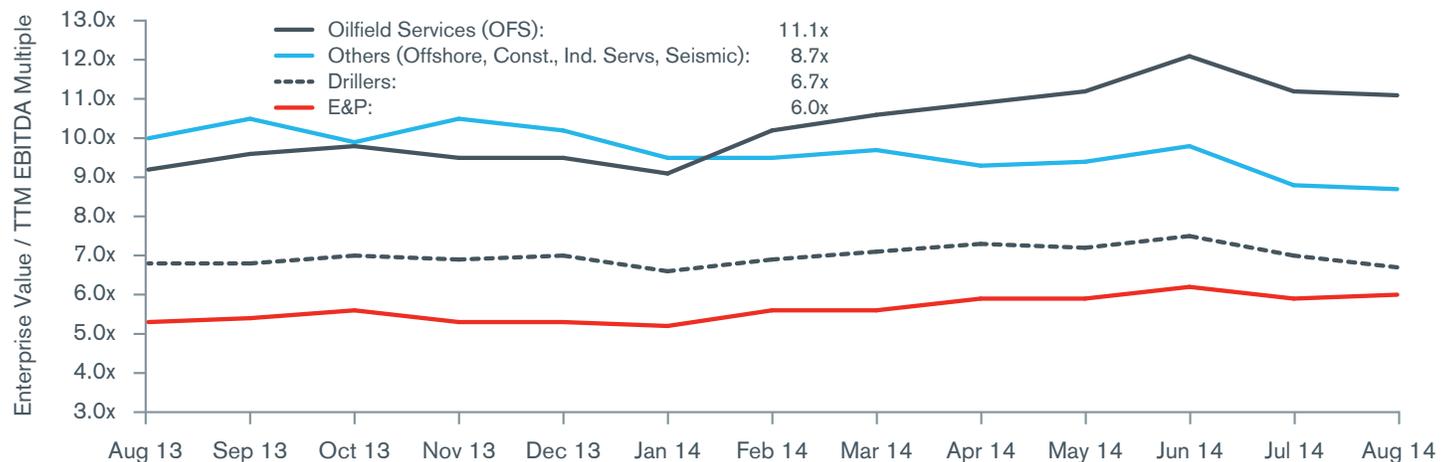
### Energy Sub-Sector Summary<sup>(2)</sup>

Oilfield Service (OFS)	Average LTM EBITDA Margin	Average EV/EBITDA		Average % of 52-Week High
		LTM	2014E	
Diversified	19.3%	10.7x	8.3x	90.4%
Service Focused	18.6	9.9	7.9	80.8
Equipment Focused	21.1	12.3	10.3	87.9
<b>E&amp;P</b>				
Integrated Majors	15.5%	5.6x	4.7x	93.1%
Large Independents	49.2	6.7	5.8	91.0
<b>Drillers</b>				
Land	33.0%	6.2x	6.0x	83.8%
Offshore	44.1	7.1	9.9	75.2
<b>Others</b>				
Offshore Transportation	26.7%	8.5x	12.4x	78.3%
Construction	8.3	9.4	9.5	76.8
Industrial Services	8.9	11.4	13.1	79.1
Seismic Related	18.8	6.0	2.9	60.2
<b>Average<sup>(3)</sup></b>	<b>22.9%</b>	<b>8.5x</b>	<b>8.3x</b>	<b>82.6%</b>
<b>Median</b>	<b>19.3%</b>	<b>8.5x</b>	<b>8.3x</b>	<b>80.8%</b>

- (1) For definitions, refer to page 14.
- (2) For more data around the constituents of each sub-sector, refer to pages 9-14.
- (3) Excludes the highest and lowest values.

Source: Capital IQ

### Average Major Energy Sectors' Trading Multiples for the Last 12 Months



Source: Capital IQ

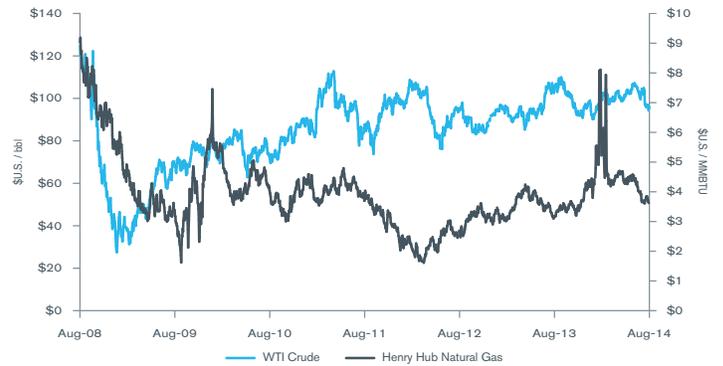
## Market Review

### OSX Index — Last 12 Months through 8/22/2014



Source: Capital IQ

### Crude Oil and Natural Gas Spot Prices — 2008 to 8/22/2014



Sources: EIA, Bloomberg

### Current Oil and Gas Prices as of 8/22/2014

WTI Crude Oil	HH - Natural Gas	Oil 12 Mo Strip	Gas 12 Mo Strip
\$93.96	\$3.89	\$92.79	\$4.99

Sources: EIA, Bloomberg

### North American Rig Count as of 8/22/2014

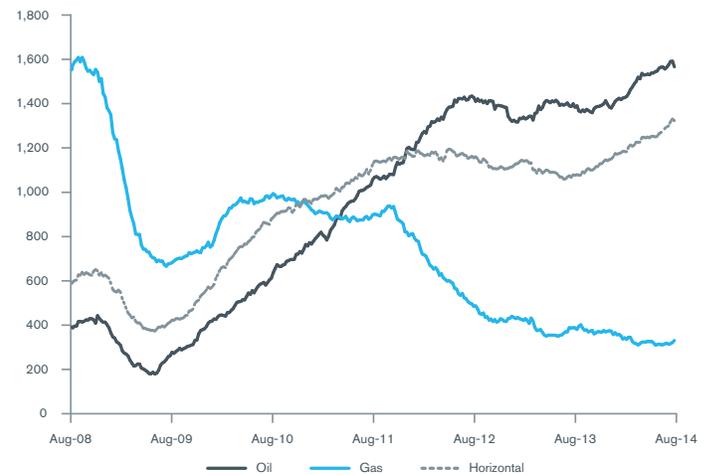
Location	This Week	+/-	Last Week	+/-	Year Ago
Land	1,822	(19)	1,841	130	1,692
Inland Waters	10	0	10	(12)	22
Offshore	64	2	62	2	62
<b>United States Total</b>	<b>1,896</b>	<b>(17)</b>	<b>1,913</b>	<b>120</b>	<b>1,776</b>
Gulf of Mexico	62	2	60	3	59
Canada	405	4	401	22	383
<b>North America</b>	<b>2,301</b>	<b>(13)</b>	<b>2,314</b>	<b>142</b>	<b>2,159</b>

Source: Baker Hughes

U.S. Breakout	This Week	+/-	Last Week	+/-	Year Ago
Oil	1,564	(25)	1,589	182	1,382
Gas	330	9	321	(57)	387
Miscellaneous	2	(1)	3	(5)	7
Directional	209	(7)	216	(47)	256
Horizontal	1,321	(8)	1,329	246	1,075
Vertical	366	(2)	368	(79)	445

Source: Baker Hughes

### U.S. Historical Rig Count — 2008 to 8/22/2014



Source: Baker Hughes

### % of Total U.S. Rig Count

	Gas	Oil	Land	Horizontal
August 22, 2014	17.4%	82.6%	96.1%	69.7%
Year Ago	21.9%	78.1%	95.3%	60.8%

Source: Baker Hughes

## Upcoming Events

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### **North America Downstream Week** **September 22-24, 2014 | Houston, TX**

The World Refining Association is launching its inaugural North America Downstream Week in Houston, TX. Bringing over 200 senior representatives from the North American downstream industry, the event will unite the entire value chain of the U.S. downstream market.

### **North American Assembly** **October 6-7, 2014 | Houston, TX**

One of the fastest growing oil and gas events in the U.S., North America Assembly welcomes over 500 delegates including directors, CEO's, and presidents to discuss the business of oil, gas, investment, and finance.

### **Offshore Executive Conference: Gulf of Mexico**

**October 16, 2014 | Houston, TX**

Together with its E&P magazine, and Subsea Engineering News (SEN) and Deepwater International newsletters, Hart Energy has developed the Offshore Executive Conference: Gulf of Mexico to provide an annual forum for senior-level offshore oil and gas executives to discuss major activities throughout the Gulf.

### **IPAA Wildcatters' Sporting Clays** **October 17, 2014 | Dallas, TX**

The IPAA Wildcatters' Sporting Clays invitational is the premier oil and gas industry sporting clay tournament benefiting IPAA's Educational Foundation. The tournament will be held at the Dallas Gun Club from 11:00 am – 5:00 pm outside of Dallas in Lewisville, TX.

## Featured Articles

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### **Mexico Senate Approves Final Bill to Open Energy Sector**

Insight on the effects regarding the legislative overhaul of Pemex's 75-year monopoly in Mexico's energy sector.

<http://in.reuters.com/article/2014/08/07/mexico-reforms-senate-idINL2N0QD07D20140807>

*Reuters*, August 7, 2014

### **Surge of Industrial Projects to Lift U.S. Gas Demand**

An examination on natural gas demand this decade due to the increase of petrochemical investments and other U.S. industrial projects.

<http://fuelfix.com/blog/2014/07/08/surge-of-industrial-projects-could-lift-u-s-gas-demand-by-19-percent/>

*Fuelfix*, July 8, 2014

## Industry Remarks

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Energy companies are taking their fracking operations from the land to the sea — to deep waters off the U.S., South American, and African coasts. The practice has been around for two decades yet only in the past few years have advances in technology and vast offshore discoveries combined to make large scale fracking feasible offshore. “Fracking in the Gulf of Mexico is expected to grow by more than 10% over a two year period ending in 2015.”

**Douglas Stephens,**  
*Baker Hughes, President of  
Pressure Pumping*

John Schiller is expecting the horizontal wells in the Gulf of Mexico to drive higher profits than the onshore wells in the shale plays. “The biggest surprise going back into these old fields is how many wells we can simply turn back on,” says Schiller. “Grand Isle 22 had been off for years. It was a simple turn on.” Now five months later that old well is still making 50 barrels of oil per day. It used to be that when a well’s “water cut” got too high an operator would just walk away rather than invest in more gear to separate it out. “You ran from water back then,” says Schiller. “You recompleted four-foot sections at a time to get away from it. Today we welcome water. We can handle the water. If we’re still making 15% oil cut, we’re making money.”

**John Schiller,**  
*CEO for Energy XXI*

## Appendix - Selected Public Company Trading Statistics

**E&P<sup>(1)</sup>**

Ticker	Price as of 8/22/2014	52-Week		Market Cap	Enterprise Value	LTM Revenue	EBITDA		LTM EBITDA Margin	EV/EBITDA		% of 52-Week High	
		Low	High				LTM	2014E		LTM	2014E		
<b>Integrated Majors</b>													
BP plc	BP.	\$8.04	\$7.07	\$8.73	\$147,460.5	\$173,601.5	\$376,480.0	\$32,438.0	\$38,523.0	8.6%	5.4x	4.5x	92.1%
Chevron Corporation	CVX	127.11	109.27	135.10	241,373.2	251,852.2	208,698.0	40,487.0	50,508.0	19.4	6.2	5.0	94.1
ConocoPhillips	COP	80.24	62.74	87.09	98,660.5	113,835.5	58,949.0	22,119.0	24,236.0	37.5	5.1	4.7	92.1
Exxon Mobil Corporation	XOM	98.50	84.79	104.76	420,072.2	442,730.2	397,129.0	61,766.0	77,403.9	15.6	7.2	5.7	94.0
Royal Dutch Shell plc	RDSA	39.75	30.97	41.21	253,112.6	282,913.6	446,636.0	48,508.0	62,881.0	10.9	5.8	4.5	96.5
Total SA	FP	63.43	53.99	72.42	144,547.7	178,106.7	232,535.0	37,430.4	38,555.1	16.1	4.8	4.6	87.6
				Average <sup>(2)</sup>	\$196,623.5	\$221,618.5	\$303,710.5	\$39,715.8	\$47,616.8	15.5%	5.6x	4.7x	93.1%
				Median	\$194,416.9	\$214,979.5	\$304,507.5	\$38,958.7	\$44,531.5	15.8%	5.6x	4.7x	93.1%
<b>Large Independents</b>													
Anadarko Petroleum Corporation	APC	\$109.74	\$73.60	\$113.00	\$55,524.4	\$66,243.4	\$16,432.0	\$9,522.0	\$11,449.9	57.9%	7.0x	5.8x	97.1%
Apache Corp.	APA	99.82	77.31	104.57	38,178.5	49,466.5	15,504.0	10,724.0	10,503.7	69.2	4.6	4.7	95.5
Chesapeake Energy Corporation	CHK	26.02	23.92	31.49	16,989.8	32,339.8	19,606.0	5,143.0	5,442.7	26.2	6.3	5.9	82.6
Devon Energy Corporation	DVN	74.15	56.65	80.63	30,334.8	45,567.8	14,529.0	5,897.0	7,268.7	40.6	7.7	6.3	92.0
Encana Corporation	ECA	21.97	16.03	24.52	16,281.7	20,403.7	6,295.0	2,846.0	3,552.9	45.2	7.2	5.7	89.6
EOG Resources, Inc.	EOG	106.27	76.77	118.89	58,178.1	62,857.7	16,164.0	8,078.5	9,267.4	50.0	7.8	6.8	89.4
Marathon Oil Corporation	MRO	40.00	31.57	40.75	26,979.4	32,240.4	14,274.0	7,721.0	7,064.0	54.1	4.2	4.6	98.2
SandRidge Energy, Inc.	SD	5.15	5.12	7.43	2,544.2	6,094.3	1,776.5	843.2	928.5	47.5	7.2	6.6	69.3
				Average <sup>(2)</sup>	\$30,714.7	\$40,479.3	\$13,866.3	\$6,534.6	\$7,183.2	49.2%	6.7x	5.8x	91.0%
				Median	\$28,657.1	\$38,953.8	\$15,016.5	\$6,809.0	\$7,166.3	48.7%	7.1x	5.9x	90.8%

(1) \$ Millions, except for per share data

(2) Excludes the highest and lowest values

(3) EBITDA does not reflect adjustments for extraordinary items

For definitions see page 14

Source: Capital IQ

## Appendix - Selected Public Company Trading Statistics

### OILFIELD SERVICE (OFS)<sup>(1)(3)</sup>

Ticker	Price as of 8/22/2014	52-Week		Market Cap	Enterprise Value	LTM Revenue	EBITDA		LTM EBITDA Margin	EV/EBITDA		% of 52-Week High	
		Low	High				LTM	2014E		LTM	2014E		
<b>Diversified</b>													
Baker Hughes Incorporated	BHI	\$68.08	\$46.25	\$75.64	\$29,617.7	\$33,225.7	\$23,313.0	\$4,082.0	\$4,905.7	17.5%	8.1x	6.8x	90.0%
Halliburton Company	HAL	67.47	47.15	74.33	57,385.1	62,741.1	30,510.0	6,428.0	7,383.1	21.1	9.8	8.5	90.8
Schlumberger Limited	SLB	109.03	80.68	118.76	141,350.4	148,062.4	46,808.0	12,707.0	13,907.0	27.1	11.7	10.6	91.8
Weatherford International plc	WFT	22.39	13.07	24.88	17,317.5	26,244.5	14,865.0	2,138.0	3,235.7	14.4	12.3	8.1	90.0
				Average <sup>(2)</sup>	\$43,501.4	\$47,983.4	\$26,911.5	\$5,255.0	\$6,144.4	19.3%	10.7x	8.3x	90.4%
				Median	\$43,501.4	\$47,983.4	\$26,911.5	\$5,255.0	\$6,144.4	19.3%	10.7x	8.3x	90.4%
<b>Service Focused</b>													
Archer Limited	ARCHER	\$1.65	\$0.73	\$2.01	\$958.2	\$1,717.7	\$2,001.1	\$187.7	\$216.5	9.4%	9.2x	7.9x	82.3%
Basic Energy Services, Inc.	BAS	23.80	11.29	29.84	1,028.2	1,808.6	1,329.2	265.1	320.6	19.9	6.8	5.6	79.8
Calfrac Well Services Ltd.	CFW	18.28	13.05	20.61	1,726.8	2,341.8	1,783.6	204.4	276.9	11.5	11.5	8.5	88.7
C&J Energy Services, Inc.	CJES	27.95	19.88	34.93	1,546.9	1,829.5	1,211.8	167.6	228.8	13.8	10.9	8.0	80.0
Core Laboratories NV	CLB	150.94	143.14	221.00	6,704.9	7,014.5	1,079.9	365.8	381.7	33.9	19.2	18.4	68.3
Key Energy Services Inc.	KEG	6.11	5.96	10.52	938.1	1,633.4	1,458.6	210.8	186.9	14.4	7.7	8.7	58.1
Natural Gas Services Group Inc.	NGS	29.10	24.70	34.96	364.3	350.3	89.3	39.2	43.8	44.0	8.9	8.0	83.2
Newpark Resources Inc.	NR	12.43	10.43	13.64	1,040.0	1,176.5	1,030.3	135.2	154.5	13.1	8.7	7.6	91.1
Oil States International Inc.	OIS	62.96	59.66	113.64	3,404.9	3,529.1	2,765.4	802.9	429.3	29.0	4.4	8.2	55.4
RPC Inc.	RES	22.37	14.22	25.15	4,895.3	5,004.5	2,062.6	546.8	654.4	26.5	9.2	7.6	88.9
Seventy Seven Energy Inc.	SSE	23.03	21.89	28.34	1,109.6	2,673.5	2,120.4	390.3	427.2	18.4	6.8	6.3	81.3
Superior Energy Services, Inc.	SPN	34.66	22.85	37.05	5,361.3	6,815.8	4,602.8	1,045.3	1,223.7	22.7	6.5	5.6	93.5
TETRA Technologies, Inc.	TTI	11.12	9.25	13.43	884.6	1,305.5	935.1	96.5	202.8	10.3	13.5	6.4	82.8
Trican Well Service Ltd.	TCW	14.05	10.93	16.61	2,102.3	2,690.9	2,136.1	129.2	224.6	6.0	20.8	12.0	84.6
				Average <sup>(2)</sup>	\$2,083.0	\$2,710.6	\$1,659.5	\$291.9	\$308.7	18.6%	9.9x	7.9x	80.8%
				Median	\$1,328.2	\$2,085.7	\$1,621.1	\$207.6	\$252.9	16.4%	9.0x	8.0x	82.5%

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For definitions see page 14

Source: Capital IQ

## Appendix - Selected Public Company Trading Statistics

### OILFIELD SERVICE (OFS)<sup>(1)(3)</sup>

Ticker	Price as of 8/22/2014	52-Week		Market Cap	Enterprise Value	LTM Revenue	EBITDA		LTM EBITDA Margin	EV/EBITDA		% of 52-Week High		
		Low	High				LTM	2014E		LTM	2014E			
<b>Equipment Focused</b>														
Cameron International Corporation	CAM	\$72.58	\$52.50	\$74.53	\$14,726.6	\$17,613.6	\$10,640.4	\$1,561.9	\$1,670.6	14.7%	11.3x	10.5x	97.4%	
CARBO Ceramics Inc.	CRR	104.38	81.01	156.00	2,411.6	2,365.3	691.1	184.6	192.1	26.7	12.8	12.3	66.9	
Compressco Partners, L.P.	GSJK	26.04	18.78	31.00	863.0	893.1	124.3	40.0	77.8	32.2	22.3	11.5	84.0	
Dover Corporation	DOV	88.88	77.63	97.00	14,802.9	16,902.6	8,965.8	1,881.5	1,640.4	21.0	9.0	10.3	91.6	
Dresser-Rand Group Inc.	DRC	68.23	51.46	71.91	5,227.5	6,280.7	2,788.4	408.5	472.8	14.6	15.4	13.3	94.9	
Dril-Quip, Inc.	DRQ	98.86	94.99	121.07	3,952.1	3,609.5	891.6	272.8	303.3	30.6	13.2	11.9	81.7	
Exterran Holdings, Inc.	EXH	42.99	26.50	45.90	2,881.2	4,862.0	2,896.9	601.3	655.4	20.8	8.1	7.4	93.7	
Exterran Partners, L.P.	EXLP	28.50	25.61	31.48	1,586.3	2,652.1	501.4	211.6	276.6	42.2	12.5	9.6	90.5	
Flotek Industries Inc.	FTK	27.72	18.51	32.92	1,494.7	1,549.4	407.1	88.4	0.0	21.7	17.5	NA	84.2	
FMC Technologies, Inc.	FTI	60.03	47.58	63.92	14,098.5	15,045.5	7,582.0	1,167.0	1,269.7	15.4	12.9	11.8	93.9	
Forbes Energy Services Ltd.	FES	4.88	2.93	5.75	106.3	399.2	437.6	67.0	76.9	15.3	6.0	5.2	84.9	
Forum Energy Technologies, Inc.	FET	32.87	24.32	37.03	3,084.9	3,490.5	1,616.1	289.6	341.5	17.9	12.1	10.2	88.8	
General Electric Company	GE	26.15	22.92	28.09	262,386.6	636,922.6	146,124.0	28,281.0	28,506.8	19.4	22.5	22.3	93.1	
National Oilwell Varco, Inc.	NOV	84.00	71.72	86.41	36,140.1	35,489.1	23,957.0	4,509.0	4,581.0	18.8	7.9	7.7	97.2	
Nuverra Environmental Solutions, Inc.	NES	13.60	12.92	27.40	363.5	940.0	515.1	77.0	101.3	14.9	12.2	9.3	49.6	
RigNet, Inc.	RNET	45.93	32.36	59.06	809.2	833.7	272.3	61.2	74.1	22.5	13.6	11.3	77.8	
Tenaris SA	TEN	21.62	19.56	24.42	25,518.8	24,383.7	10,330.0	2,755.7	2,802.6	26.7	8.8	8.7	88.5	
Tesco Corporation	TESO	20.36	15.45	22.50	816.5	710.2	535.7	99.6	113.3	18.6	7.1	6.3	90.5	
The Weir Group PLC	WEIR	43.20	33.74	47.20	9,217.7	10,516.7	4,073.4	851.6	862.5	20.9	12.3	12.2	91.5	
					Average <sup>(2)</sup>	\$8,117.4	\$8,714.0	\$4,535.4	\$887.5	\$912.5	21.1%	12.3x	10.3x	87.9%
					Median	\$3,084.9	\$3,609.5	\$1,616.1	\$289.6	\$341.5	20.8%	12.3x	10.4x	90.5%

(1) \$ Millions, except for per share data

(2) Excludes the highest and lowest values

(3) EBITDA does not reflect adjustments for extraordinary items

For definitions see page 14

Source: Capital IQ

## Appendix - Selected Public Company Trading Statistics

### DRILLERS<sup>(1)(3)</sup>

Ticker	Price as of 8/22/2014	52-Week		Market Cap	Enterprise Value	LTM Revenue	EBITDA		LTM EBITDA Margin	EV/EBITDA		% of 52-Week High	
		Low	High				LTM	2014E		LTM	2014E		
<b>Land</b>													
Helmerich & Payne, Inc.	HP	\$99.88	\$62.39	\$118.95	\$10,809.7	\$10,454.8	\$3,599.2	\$1,510.2	\$1,565.8	42.0%	6.9x	6.7x	84.0%
Nabors Industries Ltd.	NBR	25.29	15.21	30.24	7,580.5	11,061.2	6,365.2	1,705.9	1,797.3	26.8	6.5	6.2	83.6
Patterson-UTI Energy Inc.	PTEN	32.24	18.83	38.43	4,711.4	5,278.0	2,825.1	919.9	986.4	32.6	5.7	5.4	83.9
Pioneer Energy Services Corp.	PES	14.39	6.72	18.40	909.5	1,379.8	981.0	242.7	268.3	24.7	5.7	5.1	78.2
Precision Drilling Corporation	PD	11.95	8.40	14.29	3,496.0	4,564.7	2,065.3	633.1	750.0	30.7	7.2	6.1	83.6
Unit Corporation	UNT	63.29	45.00	70.37	3,138.2	3,808.8	1,486.3	683.6	791.0	46.0	5.6	4.8	89.9
				Average <sup>(2)</sup>	\$4,731.5	\$6,026.59	\$2,494.0	\$936.7	\$1,023.3	33.0%	6.2x	5.7x	83.8%
				Median	\$4,103.7	\$4,921.4	\$2,445.2	\$801.8	\$888.7	31.6%	6.1x	5.7x	83.8%
<b>Offshore</b>													
Atwood Oceanics, Inc.	ATW	\$48.36	\$44.88	\$58.46	\$3,111.6	\$4,461.0	\$1,077.9	\$532.4	\$541.6	49.4%	8.4x	8.2x	82.7%
Diamond Offshore Drilling, Inc.	DO	43.21	43.16	66.35	5,926.1	7,089.4	2,733.6	1,044.6	1,068.0	38.2	6.8	6.6	65.1
EnSCO plc	ESV	50.01	47.85	62.44	11,720.3	16,278.8	5,082.1	2,399.6	2,345.0	47.2	6.8	6.9	80.1
Hercules Offshore, Inc.	HERO	3.15	3.10	7.85	506.5	1,525.3	960.3	346.7	322.3	36.1	4.4	4.7	40.1
Noble Corp.	NE	27.68	26.04	40.66	7,037.9	13,636.7	4,606.6	2,306.3	2,029.0	50.1	5.9	6.7	68.1
Ocean Rig UDW Inc.	ORIG	19.01	16.12	20.97	2,507.0	6,483.8	1,476.2	729.6	881.0	49.4	8.9	7.4	90.7
Parker Drilling Co.	PKD	6.16	5.54	8.67	749.9	1,286.8	964.5	270.1	276.0	28.0	4.8	4.7	71.0
Rowan Companies plc	RDC	29.67	28.43	38.65	3,694.0	5,254.8	1,576.6	548.7	699.0	34.8	9.6	7.5	76.8
SeaDrill Limited	SDRL	36.69	32.40	48.09	18,091.1	30,914.1	4,836.0	2,482.0	2,938.2	51.3	12.5	10.5	76.3
Transocean Ltd.	RIG	37.97	37.67	55.74	13,752.3	22,107.3	9,603.0	3,897.0	3,539.0	40.6	5.7	6.2	68.1
Vantage Drilling Company	VTG	1.78	1.59	2.02	545.0	3,291.6	808.4	448.8	461.3	55.5	7.3	7.1	88.1
				Average <sup>(2)</sup>	\$5,449.4	\$8,903.2	\$2,590.4	\$1,204.3	\$1,253.9	44.1%	7.1x	6.8x	75.2%
				Median	\$3,694.0	\$6,483.8	\$1,576.6	\$729.6	\$881.0	47.2%	6.8x	6.9x	76.3%

(1) \$ Millions, except for per share data

(2) Excludes the highest and lowest values

(3) EBITDA does not reflect adjustments for extraordinary items

For definitions see page 14

Source: Capital IQ

## Appendix - Selected Public Company Trading Statistics

### OTHERS<sup>(1)(3)</sup>

Ticker	Price as of 8/22/2014	52-Week		Market Cap	Enterprise Value	LTM Revenue	EBITDA		LTM EBITDA Margin	EV/EBITDA		% of 52-Week High	
		Low	High				LTM	2014E		LTM	2014E		
<b>Offshore Transportation</b>													
Bristow Group, Inc.	BRS	\$71.31	\$64.10	\$85.70	\$2,536.1	\$3,365.9	\$1,594.1	\$313.2	\$319.5	19.6%	10.7x	10.5x	83.2%
Gulfmark Offshore, Inc.	GLF	38.48	37.35	53.89	1,015.2	1,535.0	497.3	193.4	198.9	38.9	7.9	7.7	71.4
Hornbeck Offshore Services, Inc.	HOS	41.95	37.44	59.93	1,523.5	2,327.9	585.5	265.0	311.9	45.3	8.8	7.5	70.0
PHI Inc.	PHII	36.54	33.50	42.70	565.7	907.3	891.2	161.1	NA	18.1	5.6	NA	85.6
SEACOR Holdings Inc.	CKH	79.87	75.25	99.00	1,583.2	2,066.7	1,302.9	240.4	260.9	18.5	8.6	7.9	80.7
Tidewater Inc.	TDW	49.15	45.51	63.22	2,443.8	3,908.1	1,486.7	442.1	409.9	29.7	8.8	9.5	77.7
				Average <sup>(2)</sup>	\$1,641.4	\$2,323.9	\$1,066.6	\$253.0	\$272.8	26.7%	8.5x	8.4x	78.3%
				Median	\$1,553.3	\$2,197.3	\$1,097.0	\$252.7	\$286.4	24.7%	8.7x	7.9x	79.2%
<b>Construction</b>													
Cal Dive International Inc	DVR	\$0.80	\$0.68	\$2.17	\$78.4	\$317.8	\$555.8	(\$7.1)	\$6.9	NM	NM	46.0x	36.6%
Chicago Bridge & Iron Company N.V.	CBI	63.13	57.54	89.22	6,830.1	8,908.8	12,214.8	1,046.2	1,150.5	8.6	8.5	7.7	70.8
Fluor Corporation	FLR	73.93	63.17	83.93	11,644.9	9,971.0	23,611.9	1,336.2	1,383.5	5.7	7.5	7.2	88.1
Foster Wheeler AG	FWLT	32.35	22.92	34.95	3,237.5	2,871.9	3,238.4	237.4	322.7	7.3	12.1	8.9	92.6
Gulf Island Fabrication Inc.	GIFI	20.63	18.06	26.82	299.2	267.9	567.2	38.5	45.1	6.8	7.0	5.9	76.9
Helix Energy Solutions Group, Inc.	HLX	26.31	19.44	28.00	2,776.8	2,834.9	1,006.1	321.2	375.2	31.9	8.8	7.6	94.0
Jacobs Engineering Group Inc.	JEC	53.89	49.57	66.88	7,170.4	7,260.2	12,619.4	707.0	774.4	5.6	10.3	9.4	80.6
KBR, Inc.	KBR	21.89	20.42	36.70	3,179.0	2,284.0	6,727.0	8.0	249.9	0.1	NM	9.1	59.6
McDermott International Inc.	MDR	7.39	6.58	9.36	1,756.1	1,985.7	2,284.1	(222.1)	48.4	NM	NM	41.0	79.0
Oceaneering International, Inc.	OII	68.23	66.00	87.64	7,369.5	7,346.2	3,515.7	796.3	865.1	22.6	9.2	8.5	77.9
Willbros Group Inc.	WG	10.69	7.66	13.69	540.5	774.7	2,149.0	100.2	116.9	4.7	7.7	6.6	78.1
				Average <sup>(2)</sup>	\$3,684.4	\$3,842.7	\$4,924.6	\$360.8	\$438.7	8.7%	8.7x	11.8x	78.2%
				Median	\$3,179.0	\$2,834.9	\$3,238.4	\$237.4	\$322.7	6.8%	8.7x	8.5x	78.1%

(1) \$ Millions, except for per share data

(2) Excludes the highest and lowest values

(3) EBITDA does not reflect adjustments for extraordinary items

For definitions see page 14

Source: Capital IQ

## Appendix - Selected Public Company Trading Statistics

### OTHERS<sup>(1)(3)</sup>

Ticker	Price as of 8/22/2014	52-Week		Market Cap	Enterprise Value	LTM Revenue	EBITDA		LTM EBITDA Margin	EV/EBITDA		% of 52-Week High	
		Low	High				LTM	2014E		LTM	2014E		
<b>Industrial Services</b>													
Chart Industries Inc.	GTLS	\$67.66	\$64.05	\$130.85	\$2,061.9	\$2,198.9	\$1,178.6	\$178.1	\$178.7	15.1%	12.3x	12.3x	51.7%
CIRCOR International, Inc.	CIR	70.36	56.88	83.37	1,243.6	1,170.6	847.8	109.8	110.0	12.9	10.7	10.6	84.4
NOW Inc.	DNOW	33.18	28.00	37.65	3,552.2	3,316.2	4,183.0	238.0	248.5	5.7	13.9	13.3	88.1
Matrix Service Company	MTRX	28.64	15.52	38.71	756.5	742.9	1,154.3	75.8	78.4	6.6	9.8	9.5	74.0
MRC Global Inc.	MRC	24.82	24.11	32.70	2,532.2	3,893.6	5,460.9	359.5	417.0	6.6	10.8	9.3	75.9
Team, Inc.	TISI	39.45	32.33	48.09	808.1	852.8	749.5	71.9	77.8	9.6	11.9	11.0	82.0
				Average <sup>(2)</sup>	\$1,661.5	\$1,884.6	\$1,840.9	\$150.4	\$153.9	8.9%	11.4x	10.9x	79.1%
				Median	\$1,652.8	\$1,684.8	\$1,166.4	\$144.0	\$144.3	8.1%	11.3x	10.8x	79.0%
<b>Seismic Related</b>													
Bolt Technology Corp.	BOLT	\$17.02	\$15.94	\$22.76	\$147.7	\$126.5	\$67.5	\$17.6	NA	26.1%	7.2x	NA	74.8%
Dawson Geophysical Company	DWSN	23.27	22.77	37.61	185.1	146.8	268.8	25.7	27.1	9.5	5.7	5.4	61.9
ION Geophysical Corporation	IO	3.34	2.81	5.52	548.0	588.1	564.7	172.6	156.4	30.6	3.4	3.8	60.5
Mitcham Industries Inc.	MIND	13.34	12.65	17.87	169.1	172.6	90.5	4.0	38.1	4.4	NM	4.5	74.7
Petroleum Geo Services ASA	PGS	7.82	7.67	13.59	1,674.0	2,856.3	1,354.6	726.9	810.9	53.7	3.9	3.5	57.5
TGC Industries Inc.	TGE	3.98	3.69	8.53	87.4	70.9	106.9	9.6	26.0	9.0	7.4	2.7	46.7
				Average <sup>(2)</sup>	\$262.5	\$258.5	\$257.7	\$56.4	\$61.9	18.8%	5.6x	3.9x	63.6%
				Median	\$177.1	\$159.7	\$187.8	\$21.6	\$32.6	17.8%	5.7x	3.8x	61.2%

- (1) \$ Millions, except for per share data  
(2) Excludes the highest and lowest values  
(3) EBITDA does not reflect adjustments for extraordinary items

Source: Capital IQ

Enterprise Value  
Market Capitalization + Total Debt + Preferred Equity + Minority Interest –  
Cash and Short Term Investments

EBITDA  
Earnings Before Interest, Taxes, Depreciation, and Amortization

LTM  
Last Twelve Months

## Appendix - Relevant M&A Transactions

Date	Target	Description	Seller	Buyer	Transaction Value (\$ in millions)
9/1/14	Agility Projects AS	Agility Projects AS offers engineering, procurement, construction, installation (EPCI), and commissioning services, for the offshore and onshore oil and gas industry in Norway.	NA	John Wood Group plc	\$164.0
8/18/14	Cameron International's centrifugal compression business	Cameron International's centrifugal compression business includes the Turbo-Air and MSG brands. In 2013 the business produced \$396MM in revenue.	NA	Ingersoll-Rand Plc	\$850.0
8/4/14	Compressor Systems, Inc.	Compressor Systems, Inc. fabricates, sells, rents, and services natural gas compressors in the United States, Australia, Mexico, and internationally. The company offers reciprocating and rotary screw compressors.	Warren Equipment Company	Compresso Partners, L.P.	\$825.0
7/21/14	AGR Petroleum Services Holdings AS	AGR Petroleum Services Holdings AS provides reservoir evaluations, well planning, well operations, and integrated field management services to the upstream oil and gas industry worldwide.	AGR Group ASA; Petco Invest AS; Petco Invest II AS	Silverfleet Capital Partners	\$270.4
7/16/14	Cadre Services, Inc.	Cadre Services, Inc. produces frac-sand proppants for oil and natural gas applications.	NA	US Silica Holdings, Inc.	\$98.0
7/1/14	Crest Pumping Technologies	Crest Pumping Technologies is a provider of downhole cementing, acidizing and pump down services.	NA	Nine Energy Service	\$174.0
6/26/14	Erick Flowback Services, LLC and Rod's Production Services, LLC	Erick Flowback Services, LLC provides equipment and services to the oil and gas industry. Rod's Production Services, LLC provides well-test services for the oil and gas industry.	NA	New Source Energy Partners L.P.	\$116.8
6/25/14	Nabors Industries Ltd., Completion & Production Services Businesses	Nabors's Completion & Production Units provide services that include stimulation, coiled tubing, cementing, wire line, work over and well services, and fluids management.	Nabors Industries Ltd.	C&J Energy Services, Inc.	\$2,918.8
6/1/14	Axip Energy Services LP, Compression, Processing & After-Market Service Business	Axip Energy Services LP offers contract, aftermarket, and producer services to upstream and midstream oil and gas operators worldwide.	Axip Energy Services LP	Enerflex Ltd.	\$430.0
5/27/14	Knox Oil Field Supply, Inc.	Knox Oil Field Supply, Inc. distributes and markets oilfield production equipment, including down-hole pumps, packers and anchors, valves and fittings, and rods and pipes.	NA	Applied Industrial Technologies, Inc.	\$132.8
5/23/14	KUDU Industries, Inc.	KUDU Industries, Inc. manufactures cavity pump solutions for the global oil and gas industry.	PCM S.A.	Schlumberger Limited	\$239.1
5/8/14	Desert NDT, LLC	Desert NDT, LLC provides nondestructive testing services such as field X-ray inspection, welder testing, piping inspection, and storage tank inspection.	Sterling Partners	ShawCor Ltd.	\$260.0
5/7/14	Wayne, Inc.	Wayne, Inc. engages in the design, manufacture, and supply of dispenser equipment and forecourt technologies for retail and fleet fueling applications.	General Electric Company	Riverstone Holdings LLC	\$600.0
5/6/14	Arctic Energy Services, LLC	Arctic Energy Services, LLC provides equipment and services consisting of flow testing, contract pumping, fluid management, and equipment rentals.	NA	Prospect Capital Corporation	\$87.1

Dates in red are publicly announced transactions that have not closed.

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