

Equities

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Oilfield Equipment Services

M&A Deals Increased in 3Q11 but a Slowdown Looms

■ Industry Overview

- **Expect Pace of M&A to Slow Following Share Price Declines** — The fourth wave of oilfield M&A deals since the mid-1990s began in 2010 and continues in 2011. In our view, the upward trend in oil prices in the first half of 2011 set the stage for increased M&A deal flow in 3Q11. However, the 33% selloff in the oil service index and the 21% drop in oil prices since late July will curtail M&A transactions in 4Q11, and the deal flow might not resume until we see a broad stock market recovery. Large share price declines do not weaken the resolve of buyers but they cause sellers to suspend discussions with potential acquirers. As an alternative to acquisitions, some oil service companies may soon announce major share repurchase plans. Topping the list of likely candidates are SLB, HAL, BHI, and NOV.
- **Oilfield Services M&A Value Increased to \$10.2 Billion in 3Q11**— Oilfield M&A value increased to \$10.2 billion in 3Q11. The deal flow was up from \$6.2 billion in 2Q11 and up from \$3.4 billion in 3Q10. The \$10.2 billion of transactions in 3Q11 represented the third-highest quarterly total since 2Q08.
- **Oilfield Services M&A Deal Count Was 15 in 3Q11** — The 3Q11 count of deals valued at \$50 million or more reached 15 transactions for the first time since 2Q08. Still, the number of oilfield service deals frequently exceeded 15 per quarter and once surpassed 25 during the M&A wave from 2006 to 2008.
- **Drilling Companies and Rigs Drove Activity** — Six of the 15 transactions involved drilling companies or individual rigs and totaled \$3.4 billion. Transocean acquired Aker Drilling for \$2.3 billion, adding two existing ultra-deepwater semisubmersibles and two newbuild ultra-deepwater drillships to its fleet. Rowan announced the divestiture of its land rig fleet to Ensign Energy Services for \$540 million. Cameron reached a deal with Joy Global to buy the drilling systems business that had been included in Joy's purchase of LeTourneau manufacturing from Rowan earlier in the year. Songa Offshore acquired an additional stake in the Songa Eclipse (semisubmersible rig), and Seadrill bought a stake in Asia Offshore (two jackup rigs) from Mermaid Maritime during the quarter. Transocean also sold a 50% stake in a 300' jackup that had been idle in Malaysia since 2009.
- **Third Quarter Deals Spread Across a Variety of Segments** — Technip acquired Global Industries for \$1,039 million, paying a 55% one-day share price premium, to expand its presence in subsea construction and related services. National Oilwell Varco acquired Ameron International, paying a 28% one-day share price premium, to increase its position in the fiberglass-composite pipe market. Two Malaysian oilfield services firms, Kencana Petroleum and SapuraCrest Petroleum, merged via a special purpose vehicle owned by Mayban Ventures Sdn.
- **Key Targets Ranked** — We have added Lufkin Industries, Inc. to our list of potential M&A targets. We believe the most likely acquisition targets in our coverage are DRC, RDC, LUFK, FTI, WFT, SPN, and HP (in order of probability).

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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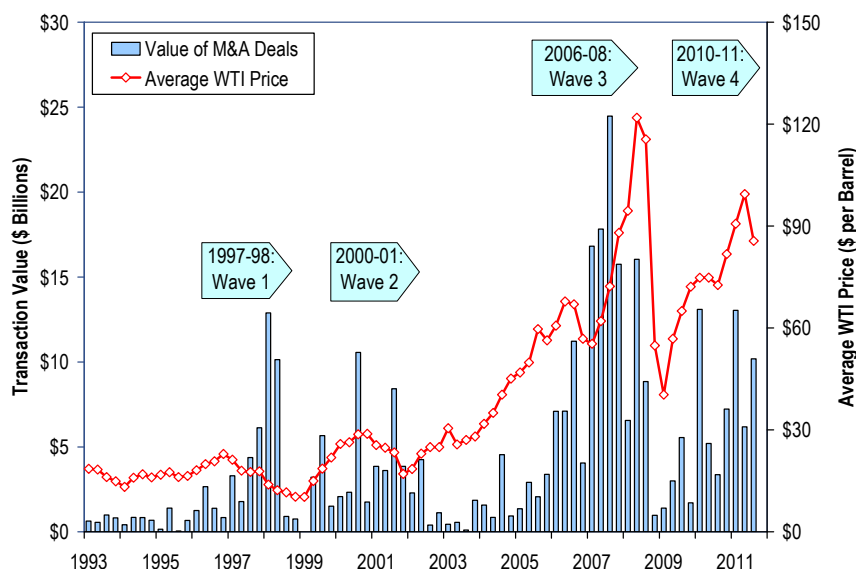
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Brisk M&A Pace Probably Will Slow

We reiterate our view that a fourth wave of oilfield M&A deals since the mid-1990s began in 2010 and continues in 2011. The dimensions of the fourth wave in comparison to three previous waves of M&A deals can be seen in Figure 1. Oil prices are the most reliable leading indicator of M&A transactions in oil services and, in our view, the upward trend in the oil price in the first half of 2011 set the stage for increased M&A deal flow in 3Q11. The strategic logic behind the current M&A wave is clear: M&A provides growth for oilfield service and equipment companies that have ample cash to spend at a time when valuations are low enough to temper downside risk in the event of an unexpected slump in energy prices. For a full discussion of M&A drivers in oil services, see our report from January 11, 2011, ["Expect More Mergers and Acquisitions in 2011: Here's Why."](#)

Oilfield M&A value totaled \$10.2 billion in 3Q11 as a result of 15 transactions announced in the quarter (see Figure 1). The deal flow was up from \$6.2 billion in 2Q11 and from \$3.4 billion in 3Q10. Six of the 15 transactions involved drilling companies or rigs and were valued at \$3.4 billion in aggregate. The \$10.2 billion of transactions in 3Q11 represented the third-highest quarterly total since 2Q08 (see Figure 1).

Figure 1. Total Value of M&A Deals per Quarter Versus WTI Oil Price

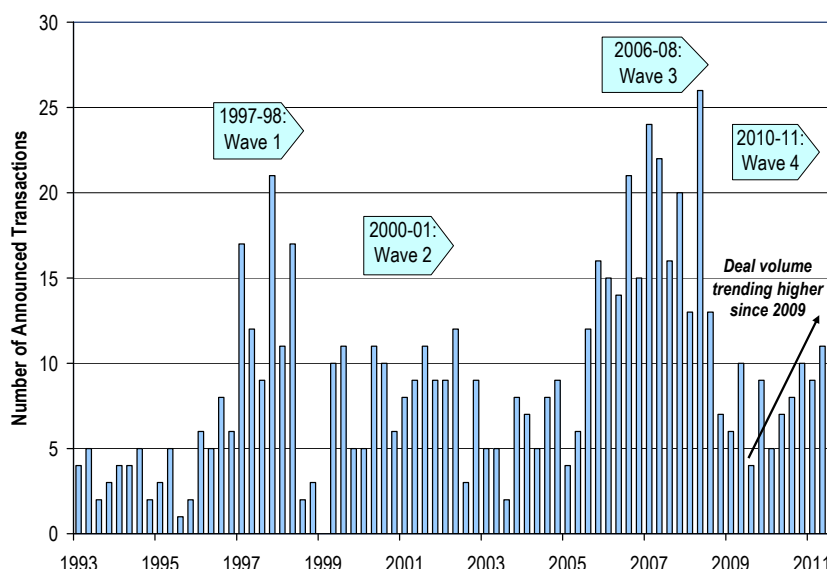


Note: Excludes transactions with values less than \$50 million.

Source: John S. Herold, Inc., Bloomberg, Citi Investment Research and Analysis

The number of announced transactions also increased in 3Q11 (see Figure 2). We believe it is no coincidence that an accelerating pace of transaction activity since 2009 has coincided with a modest upward oil price trend. The quarterly count of deals valued at \$50 million or more reached 15 transactions in 3Q11 for the first time since 2Q08. Still, this was no record. The number of deals frequently exceeded 15 per quarter and once surpassed 25 (in 2Q08) in the third M&A wave from 2006 to 2008. A return to the pace of M&A transactions in 2006-08 seems unlikely. The oil service and drilling industries are more heavily consolidated today and the rate of consolidation is slowing as fewer strong niche players remain to be acquired. The third quarter of 2011 was probably the peak in the M&A deal wave that started in the first quarter of 2010.

Figure 2. Number of Oil Service M&A Deals by Quarter Since 1993



Note: Excludes transactions with values less than \$50 million.
Source: John S. Herold, Inc., Citi Investment Research and Analysis

As OSX Plunges, M&A Deals Are Harder to Do

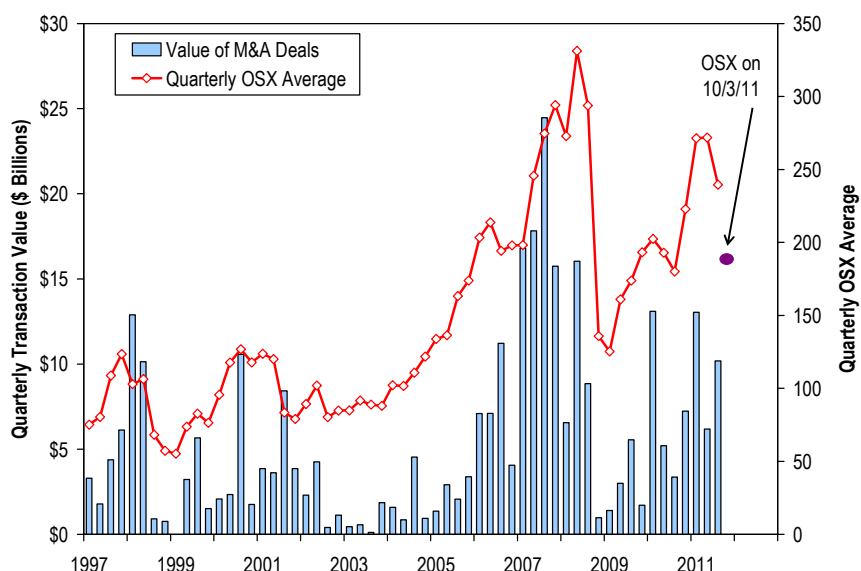
We expect the recent steep plunge in oil service share prices to cause a dramatic slowdown in M&A transactions in the near term. The pattern from previous cycles is clear: oil service M&A transactions slow to a trickle following a sharp selloff in share prices. This pattern can be observed in Figure 3. A sharp drop in the Oil Service Index in 2008 led to a deal drought in 2009. Only when stocks began a vigorous recovery in 2010 did both buyers and sellers have a reason to get back to the bargaining table.

We expect very few M&A transactions to be reported for 4Q11. Whatever deals were in the pipeline and slated for announcement in 4Q11 or 1Q12 probably have been cancelled or at least suspended until equity markets stabilize and begin to recover. Potential sellers face a significant loss of bargaining leverage that, in most cases, leads them to withdraw from negotiations with potential buyers.

Share Buybacks May Replace M&A Deals for a While

Share buybacks are likely to take precedence over M&A in the near term. Some of the major oil service companies who have repurchased shares in the past are good candidates to launch new share repurchase programs or reactivate dormant programs. These companies include Schlumberger, Halliburton, Baker Hughes, and Cameron. National Oilwell Varco has never had a share repurchase plan but we believe that the company could decide to implement a plan in 2012 in light of the slim prospects for doing new M&A deals for cash. Alternatively, NOV may decide to declare a special dividend payment from its cash reserves of \$3.5 billion. NOV paid a \$1.00 per share special dividend in late 2009 in market conditions similar to those we see today. Figure 4 shows the recent history of share repurchases by the five largest oil service companies. We expect to see new share repurchase plans from some or all of these companies, perhaps to be announced when they report their third quarter earnings.

Figure 3. Value of M&A Deals Per Quarter Versus Oil Service Index



Source: Citi Investment Research and Analysis

Figure 4. Share Repurchases by Major Oil Service Companies Since 2006 (\$ Millions)

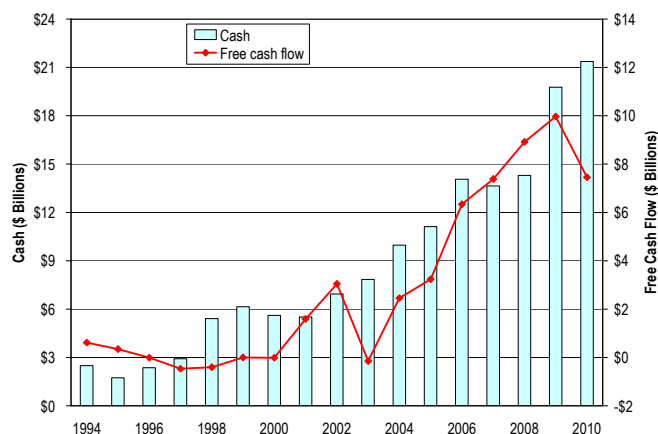
Company	2006	2007	2008	2009	2010	Jan 1- Jun 30 2011	Remaining Authorization at 6/30/11
Schlumberger	\$1,068	\$1,355	\$1,819	\$500	\$1,717	\$1,551	\$3,300
Halliburton	1,323	1,400	481	0	114	0	1,700
Cameron	0	341	260	29	124	0	3MM shares
Baker Hughes	1,856	522	627	0	0	0	1,200
National Oilwell Varco	0	0	0	0	0	0	0

Source: Company Reports, Citi Investment Research and Analysis

How Are the Companies Positioned for a Possible Downturn?

Most oil service companies are well-capitalized but have been challenged to find sufficient organic investment opportunities. In terms of acquisition firepower, the companies comprising the Oil Service Index alone held over \$20 billion of cash at the end of 2Q11 and have continued to generate free cash flow and avoid excessive leverage even while maintaining a high level of capital spending (see Figures 5-10). As these graphs show, by historical standards the OSX companies have high cash reserves and low debt-to-EBITDA ratios. They are boosting capital outlays in 2011 in response to strong and improving market conditions, but capital spending can be trimmed quickly in response to a slowdown in drilling in the U.S. or in the international arena. If we are heading into an oil service downturn in 2012, the oil service companies are well positioned to weather the storm.

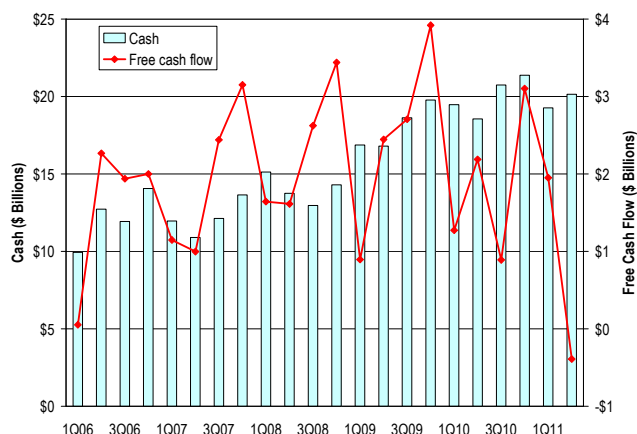
Figure 5. OSX Cash and Free Cash Flow, 1994-2010



Note: Represents aggregate of OSX components: BHI, CAM, DO, GLBL, HAL, LUFK, NBR, NE, NOV, OIL, RDC, RIG, SLB, TDW, WFT.

Source: Thomson, Citi Investment Research and Analysis

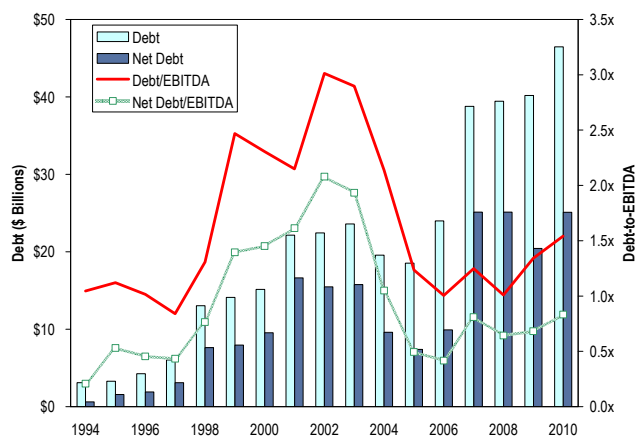
Figure 6. OSX Cash and Free Cash Flow, 1Q06-2Q11



Note: Represents aggregate of OSX components: BHI, CAM, DO, GLBL, HAL, LUFK, NBR, NE, NOV, OIL, RDC, RIG, SLB, TDW, WFT.

Source: Thomson, Citi Investment Research and Analysis

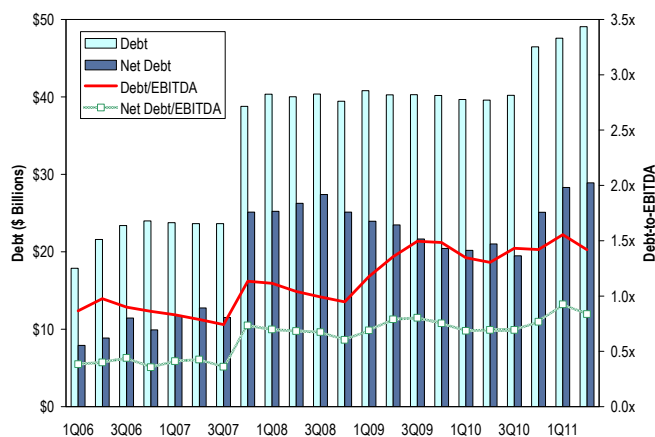
Figure 7. OSX Debt, Net Debt, and Leverage Ratios 1994-2010



Note: Represents aggregate of OSX components: BHI, CAM, DO, GLBL, HAL, LUFK, NBR, NE, NOV, OIL, RDC, RIG, SLB, TDW, WFT.

Source: Thomson, Citi Investment Research and Analysis

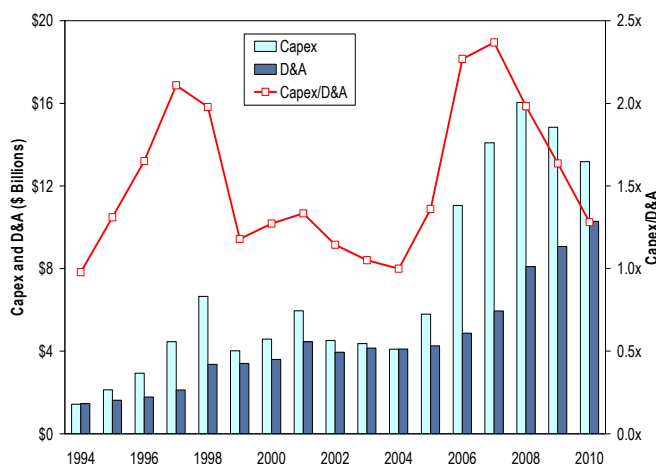
Figure 8. OSX Debt, Net Debt, and Leverage Ratios, 1Q06-2Q11



Note: Represents aggregate of OSX components: BHI, CAM, DO, GLBL, HAL, LUFK, NBR, NE, NOV, OIL, RDC, RIG, SLB, TDW, WFT.

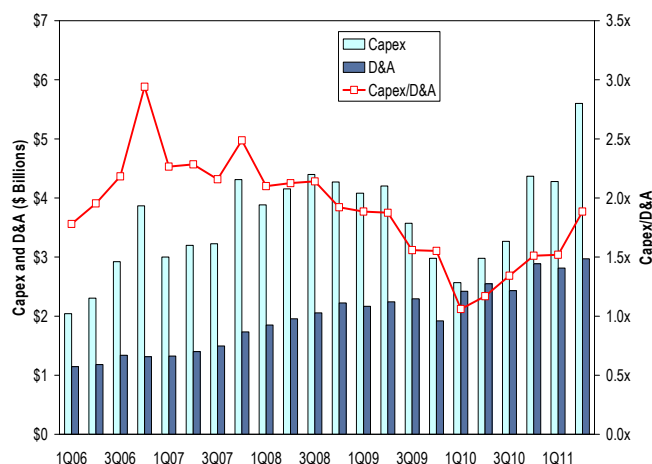
Source: Thomson, Citi Investment Research and Analysis

Figure 9. Annual Capital Expenditures and D&A, 1994-2010



Note: Represents aggregate of OSX components: BHI, CAM, DO, GLBL, HAL, LUFK, NBR, NE, NOV, OIL, RDC, RIG, SLB, TDW, WFT.
Source: Thomson, Citi Investment Research and Analysis

Figure 10. Annual Capital Expenditures and D&A, 1Q06-2Q11



Note: Represents aggregate of OSX components: BHI, CAM, DO, GLBL, HAL, LUFK, NBR, NE, NOV, OIL, RDC, RIG, SLB, TDW, WFT.
Source: Thomson, Citi Investment Research and Analysis

Third Quarter M&A Breakdown by Sector

Below is a breakdown of the 15 transactions (with more than \$50 million in value) over the last quarter by sector, summarized in the charts that follows (see Figures 11-13). Six of the 15 transactions involved drilling companies or rigs and were valued at \$3.4 billion in aggregate.

(1) Drillers/Drilling Rigs (\$3.4 billion, six deals)

- Transocean acquired Aker Drilling for \$2.3 billion on August 15, 2011. The all-cash offer was priced at a 99% premium to Aker Drilling's previous closing price. Aker Drilling operates two harsh environment, ultra-deepwater semisubmersible rigs (Aker Spitsbergen and Aker Barents), currently on long-term contracts to Statoil and Det Norske, respectively, in Norway. In 2013, Aker Drilling is expected to take delivery of two drillships currently under construction at the DSME shipyard in Korea. (See our report on Transocean's acquisition of Aker Drilling on August 15: ["Alert: Asserting Itself in the Deepwater Rig Race \(Finally\)."](#))
- Rowan announced the sale of its land drilling fleet to Ensign Energy Services for \$540 million, including \$510 million in cash and \$30 million of working capital. The fleet consists of 30 premium drilling rigs, more than half of which were constructed in the last five years. The rigs are suited for unconventional drilling in Texas, Louisiana, Alabama, and Oklahoma. (See our July 20, 2011 report: ["Land Rig Sale Valuation in Line, Dilutive to 2012 and 2013 EPS."](#))
- Cameron International reached a deal with Joy Global to buy the drilling systems business that had been included in Joy's purchase of LeTourneau manufacturing from Rowan earlier in the year. (See our note of May 16: ["LeTourneau Sale Heightens Rowan's Appeal as M&A Target."](#)) Cameron acquired the business for \$375 million in cash on August 31, 2011. The drilling systems business includes elevating systems, skidding systems, cranes, top

drives, rotary tables, drawworks, mud pumps, and rig control and power systems.

- Songa Offshore acquired the remaining 48.1% stake in the Songa Eclipse rig from Sector Omega ASA (35.1%) and Pareto World Wide Offshore AS (13.1%) for \$65 million as well as a conditional bonus payment to be made within 18 months from delivery of the rig. This represents Songa's first modern ultra-deepwater semisubmersible rig. The total cost for Songa for 100% ownership is estimated to be \$660 million.
- Seadrill Limited was allocated 33.75% ownership of Asia Offshore Drilling Limited for \$54 million in a private placement on July 5, 2011. Asia Offshore Drilling was established by Mermaid Maritime in late 2010 when two MOD-V B Class jackup rigs were ordered at Keppel FELS in Singapore.
- Transocean sold to Buccaneer Energy a 50% stake in a 300' jackup that had been idle in Malaysia since 2009 for \$68.5 million. The rig was built in 1982 and upgraded in 2004. The remaining half will be owned by offshore rig owner Ezion Holdings Ltd. of Singapore and a public-private entity the Alaska Industrial Development and Export Authority.

(2) Diversified (\$3.9 billion, two deals)

- Two Malaysian oilfield services firms, Kencana Petroleum and SapuraCrest Petroleum, were acquired by Integral Key Sdn Bhd, a special purpose vehicle owned by Mayban Ventures Sdn, on July 11, 2011. Integral Key Sdn Bhd acquired SapuraCrest for \$1,923 million and Kencana Petroleum for \$1,965M. The transactions were structured to facilitate a merger of the businesses between the Kencana and SapuraCrest groups of companies. The combination was intended in part to better position the companies to undertake larger and more complex projects.

(3) Offshore Services/Vessels (\$1.0 billion, one deal)

- Technip announced the acquisition of Global Industries for \$1,039 million, or \$8.00 per share, on September 12, 2011. The acquisition price represented a 55% premium to GLBL's closing price one day before the transaction. The all-cash transaction is expected to close in early 2012. Global Industries is a U.S.-based provider of subsea construction and pipeline, engineering, project management, and support services and operates a fleet of 14 vessels.

(4) Tool Rentals/Drilling Services (\$976 million, two deals)

- Archer Limited announced the acquisition of Great White Energy Services for \$630 million on August 1, 2011. Great White is a company formed by Wexford Capital and provides pressure pumping, coil tubing and snubbing, and directional drilling services. Its operations are focused on the U.S. unconventional basins in Michigan, Oklahoma, Texas, West Virginia, Colorado, Arkansas, and Wyoming. Assets include more than 40 quintuplex fracturing units capable of delivering 100,000 hydraulic horsepower, 11 coiled tubing units, 23 snubbing units, 16 nitrogen pumping units, 13 fluid pumping units, six wireline units, 49 MWD kits, four E.M. kits, and 392 motors. The company is scheduled to have 140,000 HHP by the end of 1Q12. Adjusted EBITDA was \$25.9 million in 1Q11 and \$29.0 million in 2Q11 and is expected to increase to \$32-\$38 million per quarter in the second half of 2011.

- Key Energy Services acquired Edge Oilfield Services and Summit Oilfield Services for a total consideration of \$345.6 million (including a \$40 million payment for pre-closing capital expenditures). KEG will pay approximately \$164 million in cash and \$141.6 million in stock based on its \$18.88 share price the day prior to the announcement. Edge Oilfield Services rents fracturing stack equipment and provides well testing services, rental equipment such as pumps and power swivels, and oilfield fishing services. Summit Oilfield Services also provides various oilfield rental tools.

(5) Manufacturing (\$592 million, one deal)

- National Oilwell Varco announced the acquisition of Ameron International for \$592 million in an all-cash transaction on July 5, 2011. The offer value of \$85.00/share represented a 28% premium to the closing price on the day prior to the announcement. Ameron is a multinational manufacturer of highly engineered products and materials for the chemical, industrial, energy, transportation, and industrial markets. Specifically, Ameron is a leading producer of fiberglass-composite pipe for transporting oil, chemicals, and corrosive fluids, and specialized materials used in infrastructure projects. (For an analysis of NOV's acquisition of Ameron, see our July 5 report: "[Acquisition Targets Growth in Fiberglass-Composite Pipe.](#)")

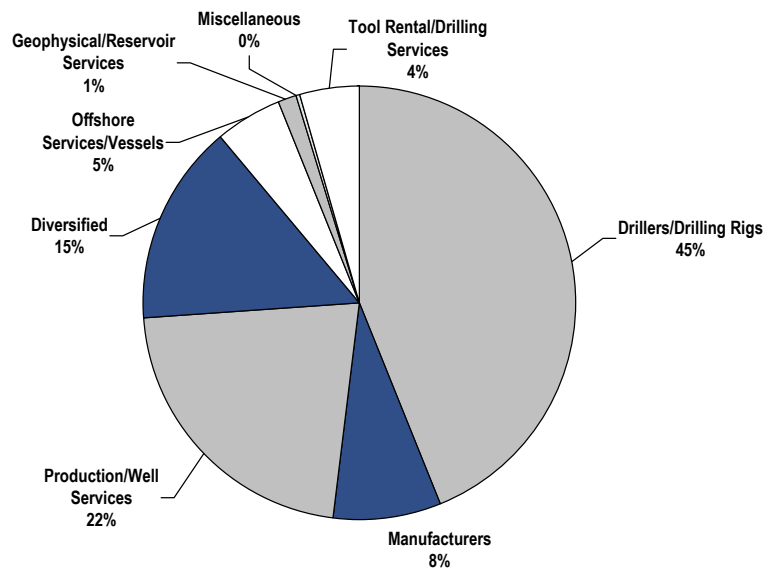
(6) Production/Well Services (\$214 million, two deals)

- Flint Energy Services announced the acquisition of Carson Energy Services for \$138 million on September 1, 2011. Carson Energy Services offers pipeline construction, fabrication, civil and facility construction, oilfield maintenance, pipeline integrity, horizontal directional drilling, trucking and tubular management, and environmental services. Carson Energy Services operates in 14 locations in Saskatchewan, Manitoba, and eastern Alberta.
- Integra Group announced the acquisition of SIAM Company for \$76 million on August 31, 2011. SIAM is a Russian oilfield service company focused on wireline and slickline services, well flow, and production logging and testing.

(7) Miscellaneous (\$84 million, one deal)

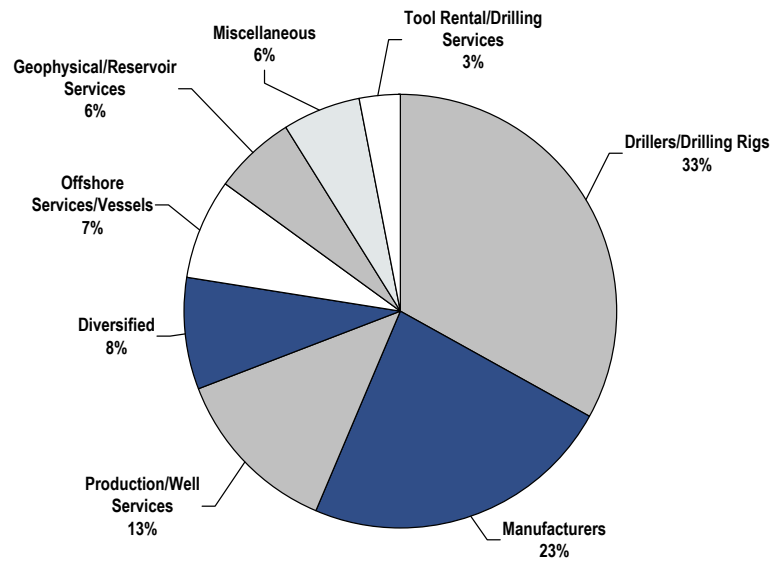
- Hunting plc announced the acquisition of Dearborn Precision Tubular Products, Inc. for \$83.5 million in cash. Based in Fryeburg, Maine, Dearborn manufactures high-precision tubular and rotating metal components, which are used primarily for MWD/LWD applications.

Figure 11. Share of Deal Value by Sector, 1Q11-3Q11



Source: John S. Herold Inc., Citi Investment Research and Analysis

Figure 12. Share of Deal Value by Sector, 2006-2010



Source: John S. Herold Inc., Citi Investment Research and Analysis

Figure 13. Number and Dollar Value of Deals by Sector

Total 2006-2010	Deals	(\$ mm)	% of Deals	% of Value
Drillers/Drilling Rigs	79	58,807	30%	33%
Manufacturers	42	41,276	16%	23%
Production/Well Services	34	22,389	13%	13%
Diversified	11	14,711	4%	8%
Offshore Services/Vessels	40	13,285	15%	7%
Geophysical/Reservoir Services	22	10,852	8%	6%
Miscellaneous	24	10,453	9%	6%
Tool Rental/Drilling Services	14	5,508	5%	3%
Total 2010	266	177,280	100%	100%

Total 1Q11	Deals	(\$ mm)	% of Deals	% of Value
Drillers/Drilling Rigs	3	8,960	33%	69%
Manufacturers	2	673	22%	5%
Production/Well Services	1	2,800	11%	21%
Diversified	0	0	0%	0%
Offshore Services/Vessels	2	460	22%	4%
Geophysical/Reservoir Services	1	146	11%	1%
Miscellaneous	0	0	0%	0%
Tool Rental/Drilling Services	0	0	0%	0%
Total 1Q11	9	13,039	100%	100%

Total 2Q11	Deals	(\$ mm)	% of Deals	% of Value
Drillers/Drilling Rigs	3	533	27%	9%
Manufacturers	1	1,100	9%	18%
Production/Well Services	1	3,500	9%	57%
Diversified	2	486	18%	8%
Offshore Services/Vessels	0	0	0%	0%
Geophysical/Reservoir Services	2	220	18%	4%
Miscellaneous	0	0	0%	0%
Tool Rental/Drilling Services	2	341	18%	6%
Total 2Q11	11	6,180	100%	100%

Total 3Q11	Deals	(\$ mm)	% of Deals	% of Value
Drillers/Drilling Rigs	6	3,388	40%	33%
Manufacturers	1	592	7%	6%
Production/Well Services	2	214	13%	2%
Diversified	2	3,888	13%	38%
Offshore Services/Vessels	1	1,039	7%	10%
Geophysical/Reservoir Services	0	0	0%	0%
Miscellaneous	1	84	7%	1%
Tool Rental/Drilling Services	2	976	13%	10%
Total 3Q11	15	10,180	100%	100%

Total 1Q11-3Q11	Deals	(\$ mm)	% of Deals	% of Value
Drillers/Drilling Rigs	12	12,881	34%	44%
Manufacturers	4	2,364	11%	8%
Production/Well Services	4	6,514	11%	22%
Diversified	4	4,374	11%	15%
Offshore Services/Vessels	3	1,499	9%	5%
Geophysical/Reservoir Services	3	366	9%	1%
Miscellaneous	1	84	3%	0%
Tool Rental/Drilling Services	4	1,316	11%	4%
Total 1Q11-3Q11	35	29,399	100%	100%

Note: Excludes transactions with values less than \$50 million.

Source: John S. Herold Inc., Citi Investment Research and Analysis

Figure 14 is a list of all deals valued at more than \$50 million that were announced over the last four quarters.

Figure 14. Recently Announced Transactions, Last Four Quarters

Date Announced	Transaction Value (\$ mm)	Sub-Sector	Seller	Buyer
9/12/2011	1,039	Offshore Services/Vessels	Global Industries Ltd	Technip
9/1/2011	138	Production/Well Services	Carson Energy Services Ltd	Flint Energy Services Ltd
8/31/2011	69	Drillers/Drilling Rigs	Transocean Ltd	Buccaneer Energy Limited
8/31/2011	76	Production/Well Services	SIAM Company	Integra Group Holdings
8/31/2011	375	Drillers/Drilling Rigs	Joy Global Inc	Cameron International Corporation
8/15/2011	2,286	Drillers/Drilling Rigs	Aker ASA; Aker Drilling ASA	Transocean Ltd
8/12/2011	84	Miscellaneous	Dearborn Precision Tubular Products Inc	Hunting plc
8/1/2011	630	Tool Rental/Drilling Services	Great White Energy Services Inc	Archer Limited
7/25/2011	65	Drillers/Drilling Rigs	Pareto Securities; Sector Omega ASA	Songa Offshore ASA
7/20/2011	540	Drillers/Drilling Rigs	Rowan Companies Inc	Ensign Energy Services Inc
7/14/2011	346	Tool Rental/Drilling Services	Edge Oilfield Services LLC; Summit Oilfield Services LLC	Key Energy Services Incorporated
7/11/2011	1,923	Diversified	SapuraCrest Petroleum BHD	Integral Key Sendirian Berhad; Mayban Ventures
7/11/2011	1,965	Diversified	Kencana Petroleum Berhad	Integral Key Sendirian Berhad; Mayban Ventures
7/5/2011	592	Manufacturers	Ameron International Corporation	National Oilwell Varco
7/5/2011	54	Drillers/Drilling Rigs	Asia Offshore Drilling Limited	Seadrill Limited
6/21/2011	172	Drillers/Drilling Rigs	Etablissements Maurel et Prom	Tuscany International Drilling Inc
6/21/2011	73	Drillers/Drilling Rigs	SeaDrill Ltd	Harrington LLC
6/3/2011	180	Tool Rental/Drilling Services	The Maverick Companies LLC	Basic Energy Services Inc
5/23/2011	125	Geophysical/Reservoir Services	Seitel Inc	Centerbridge Partners LP
5/16/2011	1,100	Manufacturers	Rowan Companies Inc	Joy Global Inc
4/27/2011	161	Tool Rental/Drilling Services	Marquis Alliance Energy Group Inc	Secure Energy Services Inc
4/20/2011	95	Geophysical/Reservoir Services	PTSC CGGVeritas Geophysical Survey Company Limited	Compagnie Generale; Petrovietnam Oil and Gas Group
4/19/2011	3,500	Production/Well Services	Frac Tech Holdings LLC; Frac Tech Services LLC	Temasek Holdings and consortium
4/15/2011	288	Drillers/Drilling Rigs	Bronco Drilling Co Inc	Chesapeake Energy Corporation
4/7/2011	304	Diversified	Maritime Industrial Services Co Ltd Inc	Lamprell plc
4/6/2011	182	Diversified	Peak Energy Services Ltd	Clean Harbors Inc
3/31/11	70	Offshore Services/Vessels	Garuda Energy Sdn Bhd	Perisai Petroleum Teknologi Bhd
3/21/2011	146	Geophysical/Reservoir Services	TGC Industries Inc	Dawson Geophysical Company
2/28/2011	150	Drillers/Drilling Rigs	Slavneft	Eurasia Drilling Company Limited
2/21/2011	270	Manufacturers	United Holdings LLC	Kirby Corporation
2/14/2011	106	Drillers/Drilling Rigs	Seahawk Drilling Inc	Hercules Offshore Inc
2/14/2011	2,800	Production/Well Services	Wood Group	General Electric Company
2/7/2011	8,704	Drillers/Drilling Rigs	Pride International Incorporated	Enso plc
1/27/2011	390	Offshore Services/Vessels	Teekay Corporation; Teekay Offshore Operating LP	Teekay Offshore Partners LP
1/4/2011	403	Manufacturers	Harbison-Fischer Inc	Dover Corporation
12/16/10	158	Production/Well Services	Gray Wireline Service Inc; Seawell Ltd	Centre Partners Management LLC
12/13/10	567	Production/Well Services	Easternwell Group Proprietary Limited	Transfield Services Limited
12/13/10	955	Production/Well Services	Production Services Network Ltd.	Wood Group
12/13/10	1,156	Manufacturers	Wellstream Holdings PLC	General Electric Company
11/30/10	180	Drillers/Drilling Rigs	PetroJack ASA	SeaDrill Ltd
10/18/10	62	Drillers/Drilling Rigs	Partera Drilling Income Trust	Western Energy Services Corp
10/15/10	672	Miscellaneous	MAC Services Group Limited	Oil States International Incorporated
10/14/10	55	Drillers/Drilling Rigs	SeaDrill Ltd	Undisclosed
10/6/10	422	Manufacturers	Robbins & Myers	T-E Energy Services
10/6/10	3,000	Manufacturers	Dresser Inc	General Electric Company

Note: Excludes transactions with values less than \$50 million.

Source: John S. Herold, Inc., Citi Investment Research and Analysis

Valuation metrics for selected oilfield services M&A deals are shown in Figure 15.

Figure 15. Selected Oilfield Services Acquisitions Since 2006

Deal #	Date Announced	Target	Acquirer	Sector	Transaction Value (\$ Millions)	Offer Price per Share	Premium One Day	Percent Cash	Forward P/E	Forward EV/EBITDA
1	9/12/11	Global Industries Ltd	Technip	Offshore Services/Vessels	\$1,039	\$8.00	55%	100%	NM	16.4x
2	8/15/11	Aker Drilling	Transocean	Drillers/Drilling Rigs	\$3,135	NOK 26.50	99%	100%	15.1x	14.2x
3	7/20/11	Land rig assets (RDC)	Ensign Energy Services	Drillers/Drilling Rigs	\$510	NA	NA	100%	NA	7.1x
4	7/5/11	Ameron International	National Oilwell Varco	Manufacturers	\$772	\$85.00	28%	100%	29.4x	10.5x
5	5/16/11	LeTourneau (RDC)	Joy Global Inc.	Manufacturers	\$1,100	NA	NA	100%	NA	7.8x
6	4/15/11	Bronco Drilling	Chesapeake Energy	Drillers/Drilling Rigs	\$288	\$11.00	6%	100%	44.0x	7.2x
7	4/7/11	Maritime Industrial	Lamprell plc	Diversified	\$304	NOK 38.00	19%	100%	12.7x	7.5x
8	3/21/11	TGC Industries Inc	Dawson Geophysical	Geophysical/Reservoir Services	\$146	\$8.00	17%	0%	16.0x	5.9x
9	2/7/11	Pride International	Enasco plc	Drillers/Drilling Rigs	\$8,704	\$41.60	21%	38%	22.7x	15.0x
10	12/13/10	Wellstream Holdings	General Electric	Manufacturers	\$1,156	£7.61	5%	100%	23.4x	11.6x
11	10/15/10	MAC Services Group	Oil States International	Miscellaneous	\$672	AUS \$3.90	16%	100%	20.3x	10.2x
12	10/6/10	T-3 Energy Services	Robbins & Myers	Manufacturers	\$422	\$31.80	17%	25%	21.2x	10.8x
13	8/9/10	Superior Well Services	Nabors Industries Ltd	Production/Well Services	\$802	\$22.12	21%	100%	33.7x	6.0x
14	5/28/10	Scorpion Offshore Ltd	SeaDrill Ltd	Drillers/Drilling Rigs	\$641	NOK 40.50	1%	100%	8.2x	7.4x
15	4/12/10	Boots & Coots	Halliburton Company	Production/Well Services	\$230	\$3.00	28%	58%	13.0x	5.3x
16	2/22/10	Smith International	Schlumberger Ltd	Diversified	\$11,670	\$44.51	18%	0%	37.2x	10.2x
17	12/11/09	Hallin Marine Subsea	Superior Energy Svcs	Offshore Services/Vessels	\$186	£2.33	87%	100%	9.4x	6.3x
18	8/31/09	BJ Services Company	Baker Hughes Inc.	Production/Well Services	\$4,956	\$17.94	16%	15%	38.7x	9.5x
19	6/2/09	NATCO Group Inc	Cameron International	Manufacturers	\$689	\$38.45	24%	0%	21.9x	10.0x
20	11/10/08	Wavefield Inseis ASA	Compagnie Generale	Geophysical/Reservoir Services	\$397	€ 12.71	31%	0%	18.1x	1.6x
21	9/19/08	DOF Subsea ASA	First Reserve Corp.	Offshore Services/Vessels	\$528	NOK 36.00	24%	100%	13.8x	6.8x
22	7/7/08	Awilco Offshore ASA	China Oilfield Services Ltd	Drillers/Drilling Rigs	\$3,791	NOK 85.00	19%	100%	14.4x	11.4x
23	6/24/08	Grey Wolf Incorporated	Precision Drilling	Drillers/Drilling Rigs	\$1,562	\$10.00	16%	50%	13.4x	4.2x
24	6/13/08	Expro International	Candover (consortium)	Production/Well Services	\$3,698	£16.15	22%	100%	29.3x	11.3x
25	6/3/08	W-H Energy Services	Smith International	Production/Well Services	\$2,808	\$93.55	9%	60%	17.5x	7.4x
26	5/30/08	DeepOcean ASA	Trico Marine Services	Offshore Services/Vessels	\$473	NOK 32.00	28%	100%	13.7x	7.8x
27	4/22/08	Ocean Rig ASA	Dryships Inc	Drillers/Drilling Rigs	\$1,571	NOK 45.00	5%	100%	11.8x	9.4x
28	2/22/08	CHC Helicopter Corp	First Reserve Corp	Offshore Services/Vessels	\$2,242	CS\$32.68	49%	100%	18.4x	9.1x
29	12/19/07	Abbot Group	First Reserve Corp	Drillers/Drilling Rigs	\$2,889	\$3.90	17%	100%	NA	15.2x
30	12/17/07	Grant Prideco	National Oilwell Varco	Manufacturers	\$7,333	\$58.00	22%	40%	13.1x	8.6x
31	10/30/07	Tubular assets (GRP)	Vallourec Group	Manufacturers	\$800	NA	NA	100%	NA	13.1x
32	9/3/07	Sondex plc	General Electric	Manufacturers	\$583	460 pence	36%	100%	19.6x	11.6x
33	8/27/07	Lummus Global	Chicago Bridge & Iron	Miscellaneous	\$950	NA	NA	100%	NA	10.5x
34	7/23/07	GlobalSantaFe	Transocean ASA	Drillers/Drilling Rigs	\$18,040	\$74.77	0%	30%	9.9x	7.7x
35	6/12/07	Horizon Offshore	Cal Dive International	Offshore Services/Vessels	\$651	\$19.25	14%	48%	13.2x	6.2x
36	5/29/07	Washington Group	URS Corp.	Miscellaneous	\$2,325	\$80.00	14%	55%	26.8x	13.5x
37	5/3/07	IPSCO Inc.	SSAB	Manufacturers	\$8,219	\$160.00	8%	100%	13.1x	7.5x
38	3/29/07	Lone Star Technologies	United States Steel	Manufacturers	\$1,934	\$67.50	39%	100%	18.0x	8.5x
39	3/19/07	TODCO	Hercules Offshore	Drillers/Drilling Rigs	\$2,291	\$42.01	28%	38%	9.3x	4.6x
40	2/12/07	HydriL	Tenaris SA	Manufacturers	\$1,992	\$97.00	17%	100%	19.8x	11.6x
41	11/20/06	Oregon Steel	Evrax Group S.A.	Manufacturers	\$2,298	\$63.25	7%	100%	10.9x	6.2x
42	9/25/06	Warrior Energy Svcs	Superior Energy Svcs	Production/Well Services	\$358	\$26.58	85%	49%	11.8x	6.0x
43	9/11/06	NS Group	IPSCO Inc	Manufacturers	\$1,460	\$66.00	43%	100%	10.8x	6.5x
44	9/5/06	Veritas DGC Inc.	Compagnie Generale	Geophysical/Reservoir Services	\$3,142	\$75.00	21%	51%	31.8x	11.2x
45	6/13/06	Maverick Tube	Tenaris SA	Manufacturers	\$3,185	\$65.00	42%	100%	9.7x	6.1x

Source: John S. Herold, Inc., Thomson, Citi Investment Research and Analysis

Potential Acquisition Targets Going Forward

We believe DRC, RDC, LUFK, FTI, WFT, SPN, and HP are the most likely acquisition candidates among the companies in our coverage. For these potential targets, we give our assessment of their likelihood to be acquired and the opportunity to achieve a premium valuation to the current stock price (see Figure 16). It is unlikely that any of these potential target companies would want to do a deal today in the wake of the recent sharp drop in equity markets. However, when equity markets recover and companies are ready to do M&A deals again, these are among the most likely acquisition targets (in our opinion).

Figure 16. Potential Acquisition Candidates (Sorted by Likelihood to Be Acquired)

Stock	Prospects	Likelihood to Be Acquired (Low=1, High=10)	Opportunity for Premium (Low=1, High=10)
Dresser-Rand Group (DRC)	<ul style="list-style-type: none"> Likelihood - Industrial or equipment companies seeking growth (GE, SI, NOV, CAM) may be attracted to the high-margin aftermarket business and diversified offshore, pipeline, and refining backlog. Opportunity - Biggest risk is that an accretive deal might be difficult given valuation. Premiums, although varied, have been solid in most recent manufacturing deals. 	9	8
Rowan Companies (RDC)	<ul style="list-style-type: none"> Likelihood - RDC has already sold its manufacturing division and its land rigs, leaving a core offshore rig business that should generate M&A interest. Opportunity - Key risk is that the valuation suggests an acquisition is priced into the share price. Prior offshore driller mergers and acquisitions have had modest premiums. 	9	3
Lufkin Industries (LUFK)	<ul style="list-style-type: none"> Likelihood - LUFK is a potential target of HAL, SLB, and BHI due to its strong market position in rod lift and a full suite of offerings across the other segments of artificial lift. Opportunity - Risk is that a significant decline in oil prices could result in a hit to valuation. 	8	7
FMC Technologies, Inc. (FTI)	<ul style="list-style-type: none"> Likelihood - Subsea tree manufacturing is a business consistent with GE's recent acquisitions. FTI is the obvious choice for GE to combine with Vetco Gray and become the leader. Opportunity - Deal might be rich and EPS-dilutive, but those are near-term concerns, and GE is nothing if not long-term focused. Premiums have generally been solid in manufacturing deals. 	8	7
Weatherford International (WFT)	<ul style="list-style-type: none"> Likelihood - WFT could provide geographic expansion for an oil service firm in the U.S., Europe, or Asia. WFT has a strong track record in artificial lift, directional drilling, and well construction. Opportunity - Risk is that a significant decline in oil prices could derail international growth forecasts. 	7	7
Superior Energy Services (SPN)	<ul style="list-style-type: none"> Likelihood - Any of the "Big Four" service firms could accelerate SPN's penetration of subsea well intervention, plugging & abandonment, U.S. land (coiled tubing, wireline), and international markets. Opportunity - The somewhat new management team may be receptive to a bid from a strategic buyer. Risk is that SPN's conglomeration of businesses may be difficult to integrate. 	6	7
Helmerich & Payne (HP)	<ul style="list-style-type: none"> Likelihood - Remote but not implausible: (1) Would PTEN seek to upgrade its fleet and leapfrog NBR in the U.S. market?, (2) Would a large operator desire a captive source of high-spec rigs in close proximity to certain shale plays (a la Chesapeake)?, (3) Would an international oil company keen to exploit the global shale potential find that H&P offers a unique channel for tapping that market? Opportunity - Risk is that these are all remote possibilities. We see no takeover premium in the stock today, however. 	4	7

Note: Companies limited to stocks in our coverage universe only. "Likelihood to Be Acquired" is the potential for the company to be acquired: Low = 1, High = 10. "Opportunity for Premium" is the anticipated size of the control premium offered by the acquirer. Small Premium = 1, Large Premium = 10.

Source: Citi Investment Research and Analysis

Appendix: Global Oil Service Companies

Figure 17. Largest Oil Services Companies Ranked by Equity Market Valuation (1 of 5)

<u>Company Name</u>	<u>Ticker</u>	<u>Market Value as of 9/29/11 (\$ Millions)</u>	<u>2011E P/E</u>	<u>2011E EV/EBITDA</u>	<u>Home Country</u>
Schlumberger N.V.	SLB-N	\$82,757	16.1x	8.4x	UNITED STATES
HALLIBURTON COMPANY	HAL-N	\$29,658	9.6x	5.1x	UNITED STATES
NATIONAL OILWELL VARCO, INC.	NOV-N	\$22,362	11.8x	5.8x	UNITED STATES
BAKER HUGHES INCORPORATED	BHI-N	\$21,195	11.2x	5.3x	UNITED STATES
Saipem S.p.A.	SPM-MI	\$16,439	13.2x	7.4x	ITALY
Transocean Ltd.	RIG-N	\$15,863	14.4x	6.8x	UNITED STATES
SEADRILL LIMITED	SDRL-OS	\$13,567	10.2x	9.3x	BERMUDA
KEPPEL CORPORATION LIMITED	BN4-SG	\$11,000	9.9x	7.4x	SINGAPORE
CAMERON INTERNATIONAL CORPORATION	CAM-N	\$10,670	16.3x	9.3x	UNITED STATES
Weatherford International Ltd.	WFT-N	\$9,545	14.6x	6.4x	UNITED STATES
ENSCO PLC	ESV-N	\$9,492	11.7x	10.7x	UNITED KINGDOM
TECHNIP S.A.	TEC-FR	\$9,370	14.9x	6.7x	FRANCE
FMC TECHNOLOGIES, INC.	FTI-N	\$9,302	22.6x	13.0x	UNITED STATES
DIAMOND OFFSHORE DRILLING, INC.	DO-N	\$7,897	9.0x	5.3x	UNITED STATES
Noble Corporation	NE-N	\$7,663	17.7x	8.7x	UNITED STATES
China Oilfield Services Limited	601808-SH	\$6,996	14.3x	7.3x	CHINA
Subsea 7 S.A.	SUBC-OS	\$6,930	16.1x	6.8x	LUXEMBOURG
PETROFAC LIMITED	PFC-LN	\$6,734	13.0x	6.8x	UNITED KINGDOM
WORLEYPARSONS LIMITED	WOR-AU	\$6,072	19.1x	11.8x	AUSTRALIA
SEMBCORP MARINE LTD	S51-SG	\$5,419	9.7x	5.7x	SINGAPORE
Sembcorp Industries Ltd	U96-SG	\$4,804	8.4x	4.2x	SINGAPORE
HELMERICH & PAYNE, INC.	HP-N	\$4,642	11.1x	4.7x	UNITED STATES
AMEC P L C	AMEC-LN	\$4,436	12.5x	7.5x	UNITED KINGDOM
Core Laboratories N.V.	CLB-N	\$4,315	24.7x	15.2x	NETHERLANDS
Fugro N.V.	FUR-AE	\$4,302	11.7x	7.2x	NETHERLANDS
ROWAN COMPANIES, INC.	RDC-N	\$4,059	18.0x	10.2x	UNITED STATES
OCEANEERING INTERNATIONAL, INC.	OII-N	\$4,029	18.6x	8.3x	UNITED STATES
NABORS INDUSTRIES LTD.	NBR-N	\$3,769	8.9x	4.0x	UNITED STATES
Offshore Oil Engineering Co., Ltd.	600583-SH	\$3,674	49.2x	13.7x	CHINA
DRESSER-RAND GROUP INC.	DRC-N	\$3,398	21.9x	11.3x	UNITED STATES
JOHN WOOD GROUP P.L.C.	WG-LN	\$3,157	14.7x	5.2x	UNITED KINGDOM
SBM Offshore N.V.	SBMO-AE	\$3,095	7.9x	6.2x	NETHERLANDS
COMPAGNIE GENERALE DE GEOPHYSIQUE	GA-FR	\$2,885	62.9x	5.0x	FRANCE
PATTERSON-UTI ENERGY, INC.	PTEN-O	\$2,881	8.0x	3.2x	UNITED STATES
MALAYSIA MARINE AND HEAVY ENGINEERING	MHB-KU	\$2,833	24.1x	20.2x	MALAYSIA
MCDERMOTT INTERNATIONAL, INC.	MDR-N	\$2,814	10.1x	4.9x	UNITED STATES
OIL STATES INTERNATIONAL, INC.	OIS-N	\$2,708	9.5x	5.5x	UNITED STATES
AKER SOLUTIONS ASA	AKSO-OS	\$2,665	10.0x	5.3x	NORWAY
RPC, INC.	RES-N	\$2,617	8.2x	4.0x	UNITED STATES
Golar LNG Limited	GLNG-O	\$2,579	34.8x	18.6x	NORWAY
Precision Drilling Corporation	PD-T	\$2,519	10.0x	4.6x	CANADA
OOO Burovoya Kompaniya Eurasia	EDCL-LN	\$2,503	8.5x	4.8x	RUSSIAN FEDERATION
CARBO CERAMICS INC.	CRR-N	\$2,469	19.3x	10.6x	UNITED STATES
Trican Well Service Ltd.	TCW-T	\$2,300	7.6x	4.2x	CANADA
Yantai Jereh Oilfield Services Group Co., Ltd.	002353-SZ	\$2,294	34.1x	27.6x	CHINA
PETROLEUM GEO-SERVICES ASA	PGS-OS	\$2,268	23.5x	5.4x	NORWAY

Source: Thomson

Figure 17. Largest Oil Services Companies Ranked by Equity Market Valuation (2 of 5)

<u>Company Name</u>	<u>Ticker</u>	<u>Market Value as of 9/29/11 (\$ Millions)</u>	<u>2011E P/E</u>	<u>2011E EV/EBITDA</u>	<u>Home Country</u>
ATWOOD OCEANICS, INC.	ATW-N	\$2,241	8.5x	6.9x	UNITED STATES
DRIL-QUIP, INC.	DRQ-N	\$2,235	23.9x	13.2x	UNITED STATES
TIDEWATER INC.	TDW-N	\$2,228	18.4x	9.6x	UNITED STATES
OSX BRASIL S.A.	OSXB3-BR	\$2,220	22.3x	N/A	BRAZIL
SUPERIOR ENERGY SERVICES, INC.	SPN-N	\$2,217	13.3x	5.2x	UNITED STATES
Ensign Energy Services Inc.	ESI-T	\$2,079	9.6x	4.4x	CANADA
Fred Olsen Energy ASA	FOE-OS	\$1,997	5.6x	4.3x	NORWAY
TGS-NOPEC Geophysical Company L.P.	TGS-OS	\$1,974	10.0x	3.1x	NORWAY
UNIT CORPORATION	UNT-N	\$1,856	9.6x	3.6x	UNITED STATES
SEACOR HOLDINGS INC.	CKH-N	\$1,778	21.6x	7.5x	UNITED STATES
LUFKIN INDUSTRIES, INC.	LUFK-O	\$1,716	20.8x	10.7x	UNITED STATES
BOURBON S.A.	GBB-FR	\$1,635	123.9x	10.6x	FRANCE
COMPLETE PRODUCTION SERVICES, INC.	CPX-N	\$1,626	7.1x	3.4x	UNITED STATES
BRISTOW GROUP INC.	BRS-N	\$1,599	13.6x	8.3x	UNITED STATES
PROSAFE SE	PRS-OS	\$1,556	9.2x	8.4x	NORWAY
Kencana Petroleum Berhad	KENCANA-KU	\$1,509	23.4x	14.4x	MALAYSIA
Helix Energy Solutions Group, Inc.	HLX-N	\$1,447	10.1x	3.6x	UNITED STATES
SapuraCrest Petroleum Berhad	SAPCRES-KU	\$1,445	21.6x	8.8x	MALAYSIA
ARCHER LIMITED	ARCHER-OS	\$1,398	22.9x	6.6x	BERMUDA
KEY ENERGY SERVICES, INC.	KEG-N	\$1,381	9.7x	4.5x	UNITED STATES
AKER DRILLING ASA	AKD-OS	\$1,371	13.8x	13.2x	NORWAY
TEEKAY OFFSHORE PARTNERS L.P.	TOO-N	\$1,366	17.5x	8.0x	BERMUDA
HUNTING PLC	HTG-LN	\$1,347	18.8x	6.5x	UNITED KINGDOM
CHART INDUSTRIES, INC.	GTLS-O	\$1,336	23.0x	11.6x	UNITED STATES
Dialog Group Berhad	DIALOG-KU	\$1,294	30.1x	22.7x	MALAYSIA
BOART LONGYEAR LIMITED	BLY-AU	\$1,223	8.0x	4.4x	AUSTRALIA
BW OFFSHORE LIMITED	BWO-OS	\$1,218	12.1x	7.8x	NORWAY
Calfrac Well Services Ltd.	CFW-T	\$1,163	7.2x	4.1x	CANADA
SCHOELLER-BLECKMANN OILFIELD EQUIPMENT	SBO-VI	\$1,144	16.9x	7.8x	AUSTRIA
PASON SYSTEMS INC.	PSI-T	\$1,078	15.5x	6.0x	CANADA
LAMPRELL PLC	LAM-LN	\$1,069	13.0x	7.5x	UNITED KINGDOM
Golar LNG Partners LP	GMLP-O	\$1,006	N/A	N/A	NORWAY
GULFMARK OFFSHORE, INC.	GLF-N	\$968	19.9x	8.7x	UNITED STATES
PAA NATURAL GAS STORAGE, L.P.	PNG-N	\$956	18.9x	13.5x	UNITED STATES
C&J ENERGY SERVICES, INC.	CJES-N	\$932	N/A	N/A	UNITED STATES
STX OSV HOLDINGS LIMITED	MS7-SG	\$925	4.8x	3.5x	SINGAPORE
GLOBAL INDUSTRIES, LTD.	GLBL-O	\$920	N/A	N/A	UNITED STATES
Gulf International Services Q.S.C	GISS-DO	\$916	9.2x	6.0x	QATAR
FARSTAD SHIPPING ASA	FAR-OS	\$887	9.9x	7.6x	NORWAY
CAPE PUBLIC LIMITED COMPANY	CIU-LN	\$874	10.0x	6.0x	UNITED KINGDOM
MODEC, INC.	6269-TO	\$862	15.0x	25.9x	JAPAN

Source: Thomson

Figure 17. Largest Oil Services Companies Ranked by Equity Market Valuation (3 of 5)

<u>Company Name</u>	<u>Ticker</u>	<u>Market Value as of 9/29/11 (\$ Millions)</u>	<u>2011E P/E</u>	<u>2011E EV/EBITDA</u>	<u>Home Country</u>
KENTZ CORPORATION LIMITED	KENZ-LN	\$834	14.3x	8.0x	UNITED KINGDOM
Bonheur ASA	BON-OS	\$832	11.1x	2.3x	NORWAY
EXTERRAN PARTNERS, L.P.	EXLP-O	\$818	N/A	9.7x	UNITED STATES
ION GEOPHYSICAL CORPORATION	IO-N	\$797	20.6x	4.2x	UNITED STATES
Trinidad Drilling Ltd.	TDG-T	\$744	12.5x	5.4x	CANADA
KingDream Public Limited Company	000852-SZ	\$739	36.8x	21.5x	CHINA
MAJOR DRILLING GROUP INTERNATIONAL INC.	MDI-T	\$722	7.2x	8.9x	CANADA
TESORO LOGISTICS LP	TLLP-N	\$711	27.3x	18.4x	UNITED STATES
HORNBECK OFFSHORE SERVICES, INC.	HOS-N	\$708	N/A	12.1x	UNITED STATES
Enerflex Ltd	EFX-T	\$681	15.1x	6.0x	CANADA
Secure Energy Services Inc.	SES-T	\$655	19.9x	10.0x	CANADA
Ganger Rolf ASA	GRO-OS	\$640	4.6x	N/A	NORWAY
TETRA TECHNOLOGIES, INC.	TTI-N	\$630	13.9x	3.1x	UNITED STATES
EXTERRAN HOLDINGS, INC.	EXH-N	\$624	-5.9x	6.0x	UNITED STATES
SAVANNA ENERGY SERVICES CORP.	SVY-T	\$616	13.7x	5.7x	CANADA
BASIC ENERGY SERVICES, INC.	BAS-N	\$614	7.3x	3.5x	UNITED STATES
SIEM OFFSHORE INC	SIOFF-OS	\$591	24.5x	11.0x	CAYMAN ISLANDS
NEWARK RESOURCES, INC.	NR-N	\$590	9.1x	4.7x	UNITED STATES
Japan Drilling Co., Ltd.	1606-TO	\$589	12.6x	4.5x	JAPAN
EZRA HOLDINGS LIMITED	5DN-SG	\$586	12.5x	17.1x	SINGAPORE
ENTREPOSE CONTRACTING S.A.	ENTC-FR	\$584	9.0x	6.3x	FRANCE
SCORPION OFFSHORE LTD.	SRPOF-5	\$575	N/A	N/A	BERMUDA
Shandong Molong Petroleum Machinery Co. Ltd.	002490-SZ	\$573	17.1x	7.4x	CHINA
CANADIAN ENERGY SERVICES L.P.	CEU-T	\$565	11.6x	7.6x	CANADA
Canyon Services Group Inc.	FRC-T	\$559	6.5x	3.6x	CANADA
SONGA OFFSHORE SE	SONG-OS	\$556	8.2x	5.2x	NORWAY
CLOUGH LIMITED	CLO-AU	\$556	10.6x	8.3x	AUSTRALIA
SOLSTAD OFFSHORE ASA	SOFF-OS	\$544	8.5x	10.4x	NORWAY
Sinopec Kantons Holdings Limited	934-HK	\$516	N/A	N/A	HONG KONG
CHINA OIL HBP SCIENCE & TECHNOLOGY CO.,LTD	002554-SZ	\$511	30.3x	21.2x	CHINA
PARKER DRILLING COMPANY	PKD-N	\$507	9.9x	4.1x	UNITED STATES
Renaissance Services SAOG	RNSS-ON	\$469	8.4x	6.8x	OMAN
OILTANKING PARTNERS, L.P.	OILT-N	\$462	31.6x	N/A	UNITED STATES
TESCO CORPORATION	TESO-O	\$459	14.9x	5.0x	UNITED STATES
PIONEER DRILLING COMPANY	PDC-A	\$457	22.6x	3.9x	UNITED STATES
WAH SEONG CORPORATION BERHAD	WASEONG-KU	\$454	11.7x	5.4x	MALAYSIA
HERCULES OFFSHORE, INC.	HERO-O	\$444	N/A	8.0x	UNITED STATES
FLINT ENERGY SERVICES LTD	FES-T	\$442	20.4x	5.1x	CANADA
Shanghai SK Petroleum & Chemical Equipment	002278-SZ	\$434	27.3x	17.5x	CHINA
Western Energy Services Corp.	WRG-V	\$429	7.9x	4.4x	CANADA
Horizon North Logistics Inc.	HNL-T	\$412	8.7x	4.7x	CANADA

Source: Thomson

Figure 17. Largest Oil Services Companies Ranked by Equity Market Valuation (4 of 5)

<u>Company Name</u>	<u>Ticker</u>	<u>Market Value as of 9/29/11 (\$ Millions)</u>	<u>2011E P/E</u>	<u>2011E EV/EBITDA</u>	<u>Home Country</u>
DOF ASA	DOF-OS	\$409	N/A	9.7x	NORWAY
NISKA GAS STORAGE PARTNERS LLC	NKA-N	\$389	9.9x	6.1x	UNITED STATES
Petrovietnam Drilling and Well Services	PVD-VH	\$378	7.4x	6.4x	VIETNAM
ELECTROMAGNETIC GEOSERVICES ASA	EMGS-OS	\$377	N/A	10.7x	NORWAY
KNM GROUP BERHAD	KNM-KU	\$377	10.8x	7.9x	MALAYSIA
Total Energy Services Inc.	TOT-T	\$375	6.4x	4.1x	CANADA
KVAERNER ASA	KVAER-OS	\$373	3.7x	2.2x	NORWAY
OYO GEOSPACE CORPORATION	OYOG-O	\$372	11.0x	5.7x	UNITED STATES
China Zhonghua Geotechnical Engineering Co., Ltd.	002542-SZ	\$335	33.4x	17.0x	CHINA
Titan Petrochemicals Group Limited	1192-HK	\$330	N/A	N/A	HONG KONG
DOCKWISE LTD.	DOCK-OS	\$329	15.5x	5.3x	NETHERLANDS
KS Energy Limited	578-SG	\$327	N/A	9.7x	SINGAPORE
ABAN OFFSHORE LIMITED	ABAN-IN	\$322	2.3x	6.6x	INDIA
GLOBAL GEOPHYSICAL SERVICES, INC.	GGs-N	\$314	18.3x	2.6x	UNITED STATES
Honghua Group Limited	196-HK	\$310	17.6x	5.0x	CHINA
GULF ISLAND FABRICATION, INC.	GIFI-O	\$304	35.6x	8.3x	UNITED STATES
C.A.T. oil AG	O2C-XE	\$272	9.3x	3.1x	AUSTRIA
EZION HOLDINGS LIMITED	5ME-SG	\$272	5.6x	5.4x	SINGAPORE
Maire Tecnimont S.p.A.	MT-MI	\$265	N/A	N/A	ITALY
Burgan Company Well Drilling, Trading & Maintenance	633-KW	\$262	N/A	N/A	KUWAIT
FORACO INTERNATIONAL S.A.	FAR-T	\$259	N/A	N/A	FRANCE
FLOTEK INDUSTRIES, INC.	FTK-N	\$255	15.0x	6.6x	UNITED STATES
Hilong Holding Limited	1623-HK	\$248	3.9x	3.6x	CHINA
TEEKAY TANKERS LTD.	TNK-N	\$239	17.0x	8.4x	BERMUDA
Petrovietnam Technical Services Corporation	PVS-VN	\$237	5.5x	5.0x	VIETNAM
COMPRESSCO PARTNERS, L.P.	GSJK-O	\$236	22.1x	8.6x	N/A
CanElson Drilling Inc.	CDI-T	\$236	7.4x	4.0x	CANADA
MATRIX SERVICE COMPANY	MTRX-O	\$233	12.1x	4.1x	UNITED STATES
Xinjiang Zhundong Petroleum Technology Co., Ltd.	002207-SZ	\$232	60.7x	13.2x	CHINA
LUPATECH S/A	LUPA3-BR	\$229	N/A	13.4x	BRAZIL
DAYANG ENTERPRISE HOLDINGS BHD.	DAYANG-KU	\$226	9.5x	4.5x	MALAYSIA
Anton Oilfield Services Group	3337-HK	\$218	9.5x	5.3x	CHINA
Independent Petroleum Group (S.A.K. Closed)	608-KW	\$217	N/A	N/A	KUWAIT
AGR GROUP ASA	AGR-OS	\$215	N/A	N/A	NORWAY
CH OFFSHORE LTD.	C13-SG	\$208	4.6x	3.8x	SINGAPORE
BASHKIRNEFTEPRODUCT	BANPB-RS	\$200	N/A	N/A	RUSSIAN FEDERATION
SWIBER HOLDINGS LIMITED	AK3-SG	\$197	8.6x	8.7x	SINGAPORE
Badger Daylighting Ltd.	BAD-T	\$196	10.3x	5.0x	CANADA
DAWSON GEOPHYSICAL COMPANY	DWSN-O	\$195	N/A	7.9x	UNITED STATES
Xtreme Coil Drilling Corp.	XDC-T	\$194	28.1x	8.0x	CANADA
CAL DIVE INTERNATIONAL, INC.	DVR-N	\$190	N/A	8.0x	UNITED STATES

Source: Thomson

Figure 17. Largest Oil Services Companies Ranked by Equity Market Valuation (5 of 5)

<u>Company Name</u>	<u>Ticker</u>	<u>Market Value as of 9/29/11 (\$ Millions)</u>	<u>2011E P/E</u>	<u>2011E EV/EBITDA</u>	<u>Home Country</u>
SHIV VANI OIL AND GAS EXPLORATION	SHIV.VANI-IN	\$185	3.1x	1.3x	INDIA
Bode Energy Equipment Co., Ltd	300023-SZ	\$184	24.4x	N/A	CHINA
Tuscany International Drilling Inc.	TID-T	\$184	N/A	6.3x	CANADA
Greka Drilling Limited	GDL-LN	\$177	18.6x	10.0x	CHINA
Alam Maritim Resources Berhad	ALAM-KU	\$177	10.6x	10.2x	MALAYSIA
Contracting & Marine Services Co. (S.A.K.Closed)	507-KW	\$175	N/A	N/A	KUWAIT
Logan International Inc.	LII-T	\$171	9.5x	5.3x	CANADA
EIDESVIK OFFSHORE ASA	EIOF-OS	\$170	10.1x	8.3x	NORWAY
Mermaid Maritime Public Company Limited	DU4-SG	\$168	N/A	5.8x	THAILAND
REM OFFSHORE ASA	REM-OS	\$167	10.4x	10.4x	NORWAY
Eastern Pacific Industrial Corporation Berhad	EPIC-KU	\$166	9.3x	4.4x	MALAYSIA
NATURAL GAS SERVICES GROUP, INC.	NGS-N	\$159	17.0x	5.1x	UNITED STATES
PURE ENERGY SERVICES LTD.	PSV-T	\$158	9.0x	3.7x	CANADA
Akita Drilling Ltd.	AKTA-T	\$156	8.8x	2.1x	CANADA
SinoTech Energy Limited	CTE-O	\$155	3.3x	2.0x	CHINA
Strad Energy Services Ltd	SDY-T	\$153	9.4x	3.9x	CANADA
JINDAL DRILLING AND INDUSTRIES LIMITED	JINDRILL-IN	\$151	13.7x	7.8x	INDIA
CE FRANKLIN LTD.	CFT-T	\$148	10.5x	5.8x	CANADA
MITCHAM INDUSTRIES, INC.	MIND-O	\$141	31.6x	4.4x	UNITED STATES
HAVILA SHIPPING ASA	HAVI-OS	\$141	N/A	9.4x	NORWAY
UNION DRILLING, INC.	UDRL-O	\$131	N/A	3.9x	UNITED STATES
ENERGY & TECHNOLOGY CORP	ENGT-U	\$127	N/A	N/A	UNITED STATES
Falcon Energy Group Limited	5FL-SG	\$126	8.0x	9.5x	SINGAPORE
Kreuz Holdings Limited	5RK-SG	\$122	3.9x	3.5x	SINGAPORE
PERISAI PETROLEUM TEKNOLOGI BHD.	PERISAI-KU	\$117	9.6x	5.5x	MALAYSIA
FORBES ENERGY SERVICES LTD.	FRB-T	\$108	N/A	N/A	UNITED STATES
Al-Safat Energy Holding (K.S.C.Closed)	606-KW	\$107	N/A	N/A	KUWAIT
SHENZHEN CHIWAN PETROLEUM SUPPLY BASE	200053-SZ	\$103	N/A	N/A	CHINA

Source: Thomson

(BHI.N; US\$45.23; 2H); (CAM.N; US\$42.28; 2H); (CJES.N; US\$14.31; 1H); (DO.N; US\$53.97; 1H); (DRC.N; US\$41.47; 1H); (ESV.N; US\$39.84; 2H); (FTI.N; US\$37.56; 1M); (HAL.N; US\$30.51; 1H); (HERO.O; US\$2.49; 2S); (HP.N; US\$39.66; 1H); (LUFK.OQ; US\$52.10; 1H); (NBR.N; US\$12.32; 1H); (NE.N; US\$28.98; 1H); (NOV.N; US\$52.78; 1H); (PTEN.O; US\$16.56; 1S); (RDC.N; US\$30.05; 2S); (RIG.N; US\$45.06; 1H); (SLB.N; US\$59.11; 1M); (SPN.N; US\$24.90; 1H); (WFT.N; US\$11.98; 1H)

Appendix A-1

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