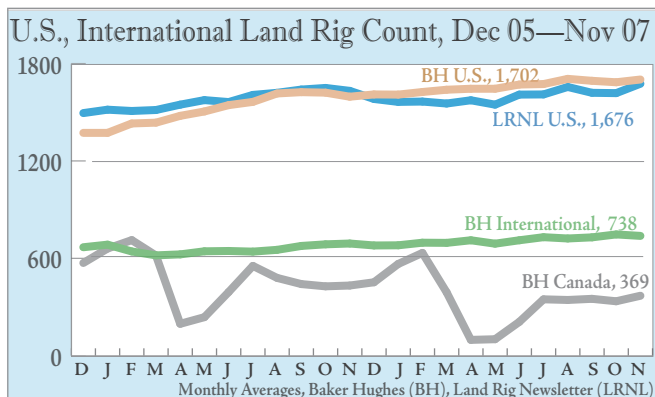


# THE LAND RIG

N E W S L E T T E R

Vol. 29, No. 11  
November 28, 2007

## The Stretch Run Is Underway

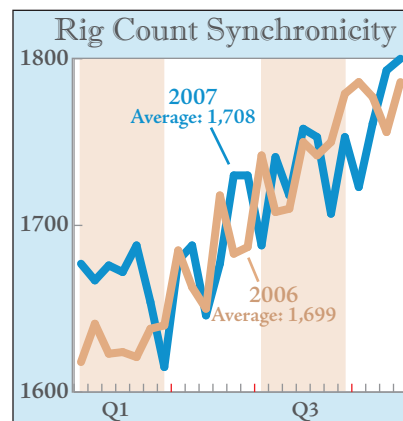


The stretch run into 2008 is on. Rig count hit modern day highs in November, topping last year's peak by a dozen units and reaching the fascinating number of 1,800 units over the Thanksgiving weekend. And that includes the drop in rig count as hunting season gets underway in the Northeast. After sputtering late in Q3 2007 as large oil and gas companies exhausted budget monies, rig count regained momentum in mid-October and moved measurably higher as smaller oil and gas operators arrived in the market. Drilling intensity now displays uncanny

### Current Trends

- Drilling activity is peaking out for 2007 with rig count at a modern-day high.
- Oil prices continue to flirt with \$100. The National Oil Companies say there are abundant supplies in the market and point fingers at speculators. Regardless, the boost to operator revenues should increase demand for field services during Q1 2008.
- Natural gas still looks problematic in 2008 as new well completion technology reverses a multi-year decline in onshore well productivity.

consistency. Average rig count for 2007 is just nine units higher year to date through November 2007 than it was in 2006, although 2007 demonstrates greater volatility (graph at right). Analysts expect similar 2008 drilling volumes.



There appears to be stability in the market as the year closes out with six of ten contractors citing stable rig rates while a third or so report modest pricing declines. If this is as bad as it gets in this cycle, well, there will be a lot of contractors breathing a sigh of relief. Most are willing to trade the distorted economics of 2006 for some modicum of stability in 2008. At this point in the year, hope springs eternal that winter may yet save the industry from the realities of an oversupplied gas market even as evidence grows that the land industry has reversed a multi-year trend of declining gas well productivity, thanks to the shale plays. It is difficult to say for certain, but it appears there is 1.5 Bcf/d too much gas in the market. Hope it stays cold.

### This Month...

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Industry economics are still attractive, judging by Q3 2007 results. Gross expenditures for drilling in Q3 2007 reached the highest point in 2007.

## Market Dynamics

Operators	11/07	10/07	Trend
10+ Rigs	925	867	58
4 to 9 Rigs	272	296	-24
3 Rigs or Less	603	598	5
<b>Total</b>	<b>1,800</b>	<b>1,761</b>	<b>39</b>
Contractors			
Top Two	427	409	18
Mid Fleet	878	846	32
Small Fleet	495	506	-11
<b>Total</b>	<b>1,800</b>	<b>1,761</b>	<b>39</b>

Interesting dynamics are underway as drilling activity matures in Q4 2007.

The national drillers are starting to put additional equipment to work after a slow deflation in activity levels that lasted nearly a year. The stimulus for the big guys comes from a modest increase in larger oil and gas company drilling programs. These programs had lost steam in late Q3 but are starting to recover. This event coincides with greater activity levels among smaller oil and gas firms. The combination boosted rig count to modernday highs in November, exceeding last year's peak.

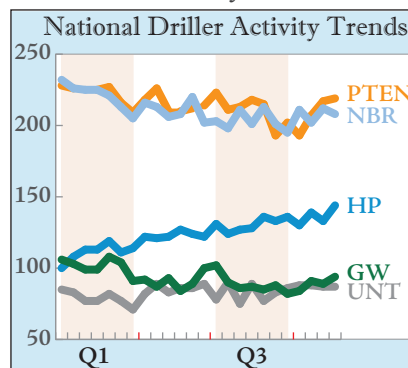
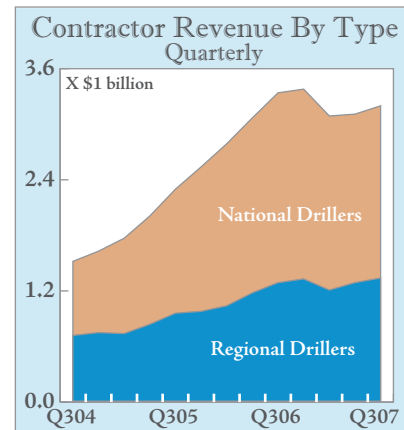
Note that the rig count above includes units in all classes and all depth ranges drilling for oil or gas. The LRNL graph on Page One excludes rigs drilling less than 5,000 feet in the major markets.

Industry spending on land drilling services came in at \$3.1 billion, which is the third highest total in the last six quarters. The volume was exceeded only in Q3 and Q4 2006. Of note, aggregate top line land drilling revenue reached \$9.3 billion during the first three quarters of 2007 and exceeds the same period in 2006 by \$210 million. The industry is on track to equal 2006 revenues of \$12.5 billion as the final quarter of 2007 unfolds.

**The national drillers benefit most at the height of the cycle by adding the last incremental rigs at the highest day rates.** The phenomenon is reflected in the graph at right, which shows a sharp rise in national driller revenues during the 2nd half of 2006. When the market softens, as it did in the first half of 2007, regional drillers hold their own while bigger firms take the hit.

Although revenue share for regional drillers took a slight dip in Q1 2007, the event was both mild and temporary. In fact the regional drillers experienced peak revenues in Q3 2007, partly because there are more of them now, and their rig fleets have grown.

It is a different story for the national drillers. The Big Two national drillers are down \$230+ million in top line revenues versus the same quarter one year ago, or a decline of 21 percent. The exception to the national driller trend line is HELMERICH & PAYNE, which saw U.S. land revenues rise \$84 million year over year on the addition of 50 newbuild rigs. The graph at left shows rig employment trends for five national drillers. With the exception of HP, all saw activity



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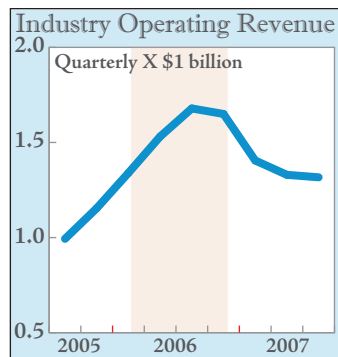
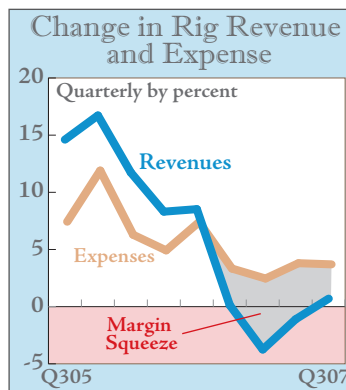
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decline during the first nine months of the year, though it appears the trend bottomed at the end of Q3 2007.

**Individual rig revenues moved up in Q3 2007 for the first time in a year.** Some of this comes through fleet expansion on extended term contracts, which feature higher rates than the current spot market. While there are many ways to scale the looming mountain of greater drilling demand that many analysts forecast, technology initiatives clearly favor some contractors, and those contractors bring up the average for the industry as a whole. Though down from the peak in the late 2006, revenue per rig of \$1.84 million during Q3 2007 came in about where it was in Q2 2006. The pullback hasn't been as steep or as deep as the rollovers in 1997 and 2002.

Expense per rig is a different story. It is still rising and averaged \$1.04 million for the quarter. Consequently, margin continued a downward arc, falling to 41 percent of revenues, or about where it was in Q2 2005. Perspective depends on the benchmark for comparison. For example, year over year (YOY) metrics are problematic since the industry was at peak economic performance in Q3 2006. The Q3 2007 numbers show individual rig revenues down 3.6 percent on a YOY basis, while expenses are up 14 percent. Such math is not pretty. The graph at right shows the percentage change by quarter for both rig expenses and revenues. After two quarters of sequential decline, industry revenues turned positive in Q3 2007, which is promising news at face value. But expenses continue to rise sequentially, hence the ongoing margin squeeze. Odds favor further margin erosion in 2008 as rigs on term contracts roll into the spot market. Margins as low as 35 percent are not out of the realm of possibility before the cycle bottoms, particularly if drilling turns down on the basis of an oversupplied gas market. But 35 percent ain't bad.

Another way to look at this is through aggregate industry operating revenue. The graph at right shows the figure peaking at \$1.68 billion one year ago then dropping in the 1st half of 2007. While the number is now down 21 percent versus the Q3 2006 peak, it is still up 33 percent versus Q3 2005. This is still an industry that generates lots of dollars.



Canadian contractors have taken a hit on drilling revenues as activity declines north of the 49th parallel. Year over year revenue declines for publicly held Canadian drillers show ENSIGN ENERGY RESOURCES down 37 percent, PRECISION DRILLING TRUST down 35 percent, and TRINIDAD DRILLING down 23 percent versus the 2006 peak. These three companies and a fourth, SAXON ENERGY SERVICES, have offset some of the decline by diversification into the U.S. and international markets.

TRINIDAD expanded its U.S. base by acquisitions and newbuilds. The contractor delivered 17 newbuilds to the U.S. market in 2007 with three more scheduled by year end. The driller purchased U.S.-based AXXIS DRILLING in July for \$148 million, gaining four land rigs and a barge drilling unit.

PRECISION DRILLING TRUST experienced the lowest activity levels in a decade in the WESTERN CANADIAN SEDIMENTARY BASIN. Rig rates dropped eight percent sequentially in Q3 2007. However, PRECISION has deployed eight advanced technology rigs to the U.S. in 2007 with three more scheduled by year end. Seven will be active in the Barnett Shale while four are deployed in the Rockies.

ENSIGN ENERGY RESOURCES found that rising Q3 2007 activity in the U.S. offset softness in Canada. U.S. revenues now account for 35 percent of the company's top line. ENSIGN had 56 rigs active in the U.S. during Q3 2007, producing revenues of \$149 million, or a 12 percent year over year gain. The company has deployed 11 ADR advanced technology rigs to the U.S. market and will finish the year by adding two more.

SAXON'S U.S. footprint will hit 19 rigs by year end in the Fayetteville and Barnett Shale plays, including seven newbuilds in 2007.

## An Industry That Launched 1,000 Rigs? Marketed Fleet Tells A Different Story

Industry stalwarts point to a 1,000 rig increase in the U.S. fleet over the last two years, with more than half the additions classified as newbuilds. The largest volume increase since 1981 amounts to adding a rig a day for two years running, and suggests nearly 40 percent of the current U.S. land fleet has been built new or refurbished in two years.

Those are astounding numbers.

There are other ways to look at capacity. One involves marketed fleet. We define this as rigs that have drilled one or more oil or gas wells over the previous 90 days. The assumption is these rigs are mechanically sound and have crew available. Marketed fleet at the end of October was 2,299 units.

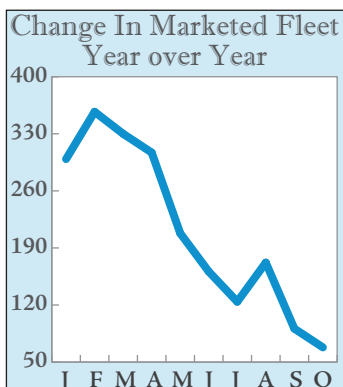
Despite the continuing roll out of new rigs, marketed fleet increased only incrementally from August through October. It suggests that new or refurbished units replaced older rigs in the fleet, although just 77 units are officially listed as having left the fleet in 2007.

Secondly, 2007 was a bipolar year. Marketed fleet actually trended down during the first five months as rigs were stacked out for lack of work. We believe as

many as 230 rigs stacked out by the end of Q3 2007. Despite that, utilization ranged from a low of 73 percent in Q1 to 77 percent in Q2, and has been in the 75 or 76 percentile range for most of 2007. It is a level consistent with flat or modestly declining rig pricing.

Add marketed to stacked rigs and effective fleet capacity comes out somewhere between 2,500 and 2,550 units. The difference between that number and the 2,800 or so rigs counted as part of the 2007 fleet involves paper rigs. If we look at year over year

additions to the marketed fleet by month in 2007, the number peaked at 357 units in February and declined to 68 by October (graph). There are about four dozen newbuilds announced for 2008 and a similar number of refurbis. Capacity additions are losing momentum.



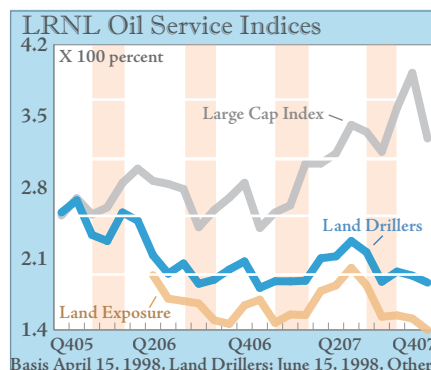
Land Drillers Index			
	Index*	Oct 15	Nov 15
Bronco	\$17.00	\$13.98	\$14.92
Grey Wolf	4.12	6.29	5.45
Helm. & Payne	10.66	33.04	33.11
Nabors	12.40	30.25	27.32
Patterson-UTI	6.50	21.64	20.22
Pioneer Drilling	2.50	11.95	11.92
Union	14.48	13.80	13.10
Composite*	\$67.66	130.95	126.07
Index Value	100%	193.5%	186.3%
Large Cap Oilfield Service			
Baker Hughes	\$29.63	\$98.50	\$78.71
BJ Services	6.17	27.76	24.92
Grant Prideco	18.00	55.45	45.92
Halliburton	17.97	41.48	36.57
Schlumberger	27.21	111.39	90.84
Smith Int'l	9.36	74.66	60.58
Weatherford	13.17	67.58	60.56
COMPOSITE*	\$121.51	476.82	398.10
INDEX VALUE	100%	392.4%	327.6%
Land Drilling Exposure			
Basic Energy	\$21.50	\$20.18	\$19.06
Complete Prod.	26.90	21.22	17.80
Key Energy	13.13	14.96	13.86
Parker Drilling	6.75	8.28	7.84
Unit Corp.	6.25	47.86	45.52
COMPOSITE*	\$74.53	112.50	104.08
INDEX VALUE	100%	150.9%	139.7%
*Land Drillers Basis, April 15, 1998; Others, June 15, 1998			

## Oil Winks At \$100 As Valuation Volatility Increases

Change comes to the LAND DRILLING EXPOSURE index following the sale of PRIDE INTERNATIONAL's Latin American land fleet to a privately held Brazilian investment group for \$1 billion in August. This month the index drops PRIDE and adds COMPLETE PRODUCTION SERVICES (CPX), a domestic well site services firm that went public in April 2006.

It creates a temporary break in trend line since the graph at right normally carries two years of data. The revised index for LAND DRILLING EXPOSURE only covers the 19 months after CPX went public.

This month's sample occurred in the midst of ugly investor sentiment with a souring mood tied to housing credit issues. Oil prices dropped concurrently with the midmonth sample and the broader market sell off hit the energy complex hard. On a year over year basis, 12 of the 19 companies in this universe are down in value. Of the seven companies with higher valuations, SMITH, SCHLUMBERGER, WEATHERFORD, and HELMERICH & PAYNE are up 34 percent, or more, while five companies, PARKER, PATTERSON, COMPLETE, GREY WOLF and BJ, are down over 20 percent.



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## People, Drilling Bits, and Hydraulic Horsepower

It's the people, not the rig, says Martin Geiger, CADE DRILLING rig superintendent. He oversees Rig 21 which, at 513,000 feet in late November, is closing in on a national footage record. While the industry awaits enough well data to address the efficiency of new technology rigs, the MIDWAY 1000 triples unit is boring its way into territory where few rigs have gone before.

It is extremely rare for land rigs to top 500,000 feet in a calendar year. Last year produced the first instance in which two rigs barely breached the 500,000 foot marker. There is one other instance in the last decade, but that event is not fully vetted. Rigs first topped the 400,000 foot barrier in the late 1970s. Mr. Geiger, in fact, worked on GEAR Rig 2, a NATIONAL T-32 which set a national record of 404,000 feet in the Niobrara in 1978. Only a dozen rigs exceeded 400,000 feet in 2006. Generally the highest volume land rigs are mechanical units—often doubles—drilling relatively shallow wells in the 5,000 to 7,500 foot range. These cookie cutter programs enable contractors to fine tune the process to maximum efficiency.

High volume performance is common in Colorado's DJ Basin, location of Rig 21, and the Sonoran Basin in West Texas. LAND RIG NEWSLETTER studies show that three-fourths of the top 20 rigs work these two basins in any given year.

Besides people, modern drilling performance relies on better drilling bits and greater hydraulic horsepower. Mr. Geiger points out it once took four bits to finish a well in the DJ Basin. It is now done with a single bit, significantly

reducing non-productive time from tripping pipe.

Enter Rig 21. The unit finished 252,000 feet of hole by the end of June. Volume has expanded since, including nine 7,000 foot J sand wells in October. The unit, which works turnkey for NOBLE, is on pace to exceed 550,000 feet, and then some, depending on weather.

Rig 21 drills out from 400 feet of surface casing, reaching total depth of 7,000 feet within 36 hours. The rig spends approximately 21 rotating hours to cover the distance. The standard mechanical unit can be transported in 16 or 17 loads. Truck moves up to two miles are accomplished in six hours. Of note, better bits and greater hydraulic horsepower mean lower rotary table speeds and less wear and tear on drill pipe. RPMs dropped from 180 previously to 60 or 70 currently.

Rig volume in the WATTENBURG FIELD has fallen from four or five dozen in the late 1980s to a couple dozen currently. More gets done with less. Wells used to take 10 to 14 days from spud to release. Well cycle is three or four days currently. In fact the greatest challenge to increasing the volume is well availability. Rig efficiency sometimes means DJ basin rigs are ready before the customer can generate the next prospect. Scheduling issues involve backlogs in permits, well stimulation, casing crews, and roustabout services in a tightly stretched oil patch.

Expectations are for drilling volume to increase in the DJ through downhole spacing with regulatory issues generating growing interest in pad drilling applications.

## Canadian Agency Forecasts the Worst Drilling Utilization Since the 1980s

It looks bleak for Canadian oil services in 2008. The country's major contractor trade group anticipates the lowest fleet utilization since the 1986-92 shake out. At the same time, new rigs are still under construction in an oversupplied market.

An appreciating Canadian dollar has collided with high field costs to alter the economics of Canadian natural gas production. LNG now competes against Canadian gas. And the threat of tax law changes at both the provincial and national levels clouds operator outlooks beyond 2008.

Field economics remain the primary issue at the moment, however. The PETROLEUM SERVICES ASSOCIATION OF CANADA (PSAC) expects a 17 percent decrease in 2008 wells, primarily in shallow gas drilling. Similarly, The CANADIAN ASSOCIATION OF OILWELL DRILLING CONTRACTORS (CAODC) forecasts sub-economic conditions for drilling contractors in 2008 with average fleet utilization of 34 percent. CAODC expects the winter drilling peak to generate only 50 percent utilization. CAODC says industry well completions fell 26 percent in 2007, or 6,000 wells (to 16,400), from the 2006 peak. The association's expectations for

2008 are 36 percent below the 2006 peak.

Is lower drilling volume good news for an oversupplied U.S. gas market? Canadian gas production is down 1 Bcf/d to 15 Bcf/d in 2007, and expected to fall further. Through August 2007, Canadian exports of 9 Bcf/d to the U.S. had yet to roll over, however. Coupled with LNG, Canadian gas is contributes to an oversupply situation in the U.S.

There is an often-voiced fear that unemployed Canadian rigs are headed to the U.S. market. About four dozen Canadian newbuilds were sent to California, the Rockies, and the Barnett Shale in 2006 and 2007. But this figure is misleading since a majority of exports were purpose built for the U.S. market by Canadian contractors looking to expand south. The CAODC expects 30 rigs to emigrate to the U.S. in 2008. More would come from Canada's 900 rig fleet except Canadian crews are not interested in relocating to the U.S. for anything more than brief periods. Also, the U.S. market requires different rig specs.

Canadian gas exports to the U.S. may fall 2 to 3 Bcf/d over the next three years as gas is allocated to oil sands development and Canadian organic demand grows.

## Speculation Exploits Two Exchange System for Arbitrage, Inflating Energy Prices

If crude oil prices have you buffaloed, you're not alone. Analysts cite many reasons for higher energy prices including geopolitics, rising demand in Asia, and tight global supplies.

While geopolitics are real, rising demand in Asia is an unfolding event that will manifest in the future. As for a tight market, crude oil supplies rose faster than demand over the last couple years. In the summer of 2006, U.S. oil inventories hit an eight-year high while OECD inventories reached a 20-year high. When U.S. supplies hit similar levels in May 1998, crude oil was \$15—and falling.

Before 2004, falling crude oil supplies produced higher prices, and vice versa. After 2004, the opposite occurs as high global inventories coincide with rising energy prices, something counterintuitive to Econ 101.

The difference between the two eras involves speculative volume. Speculation refers to the purchase of futures contracts by entities that have no business interest in taking physical delivery. Though these firms do not take delivery of contracts, they create additional demand through buying or selling energy futures. More money chases a finite product and prices rise. Congressional hearings have unearthed how speculation impacts energy prices. Estimates in 2006, when oil was \$70, range up to \$25.

**The oil price conundrum can be traced to a black box energy market using unregulated foreign electronic exchanges to trade daily U.S. energy futures.** Crude purchasers now buy and sell U.S. energy futures out of sight of U.S. regulatory bodies that monitor market behavior. Essentially a separate trade mechanism provides equivalent services to the NEW YORK MERCANTILE EXCHANGE (NYMEX), but without transparency. Behaviors have surfaced statistically on the NYMEX that indicate crude purchasers are gaming the system by

using two exchanges for futures trading, only one of which is transparent.

**Until 2000, U.S. energy futures were traded exclusively on regulated exchanges** like the NYMEX. The COMMODITY FUTURES TRADING COMMISSION CFTC required traders to keep and report records of trades, including large daily open positions. The NYMEX functions as an open market with trades run through a clearinghouse to guarantee contracts. Trades are offset and the process produces transparent daily price discovery. Change came with passage of the COMMODITY FUTURES MODERNIZATION ACT of 2000. A last minute, little publicized insertion into the legislation exempted Over the Counter OTC electronic exchanges from CFTC oversight. ENRON was a major player seeking the change, which became known as the ENRON LOOPHOLE. The provision meant there was no limit on the number of contracts a crude purchaser held on unregulated, non-transparent OTC electronic exchanges. **That ultimately became a factor in the August 2006 AMARANTH meltdown**, creating a sharp reduction in U.S. natural gas prices. But that's getting ahead of the story.

Roots for a parallel unregulated exchange date two years before the ENRON LOOPHOLE when the CFTC granted the Atlanta-based predecessor to INTERCONTINENTAL EXCHANGE (ICE) permission to locate computer terminals in the U.S. for trading European energy futures. Within a few years the London-located ICE developed a standardized contract and created a clearinghouse to protect trades. It now publishes pricing information shortly before the NYMEX daily close.

The plot thickened when the CFTC granted ICE permission in January 2006 to trade U.S. energy futures on the London exchange through U.S.-based ICE terminals. By directing trades in U.S. energy futures such as crude oil, gasoline, heating oil, or

natural gas through London-based ICE, traders avoid CFTC oversight. The volume of WTI crude contracts traded on the London exchange rose to 30 percent within the first months of 2006 and is now above 40 percent.

That trend coincided with a sharp rise in speculative dollars chasing energy futures in the wake of the ENRON LOOPHOLE. In 2006 *The New York Times* identified 450 hedge funds with \$60 billion invested in energy or environmental assets. The INTERNATIONAL MONETARY FUND cites industry estimates indicating energy funds attracted \$100 to \$120 billion in new investment globally between 2003 and 2004. Simultaneously, **the rise in futures prices provided financial incentive for oil companies to purchase and store crude oil** as rising investment inflated the value of futures contracts above the spot market. The collision created high prices and high storage—and an historic change in supply/demand fundamentals.

OTC electronic trading of U.S. energy futures on foreign exchanges duplicates the trading mechanism that NYMEX provides, which is why NYMEX and ICE are in litigation.

The practical difference in today's two exchange futures market is that one exchange is transparent and the other is not. Arbitrage has become a major driver in trading energy futures. Volume allows traders to exploit minor differences in price for significant nominal gain. The NYMEX finds that trade volume falls significantly below historic levels during the last 30 minutes of the final trading day for a monthly contract, for example. The volume doesn't leave the market, it just changes exchange. Basically the ICE shields speculative purchasers from oversight. As the AMARANTH incident shows, this system can create market imbalances which impact the energy industry. Question: is another AMARANTH lurking in the wings?

## Economic Performance for Publicly Held U.S. Land Drilling Companies

Q3 2007	Bronco	Capstar	Grey Wolf	Helm. & Payne	Nabors USA
Land Revenues	\$70,441,000	40,200,000	223,999,000	332,397,000	416,525,000
Expenses	\$39,135,000	23,900,000	136,947,000	170,311,000	285,764,000
Rigs	68	33	121	159	388
Utilization	78%	87%	86%	91%	57%
Working Rigs	53	29	104	145	222
Revenue Per Rig	\$1,329,075	1,396,997	2,153,837	2,287,660	1,879,625
Expense Per Rig	\$738,396	830,553	1,316,798	1,172,134	1,289,549
Implied Rig Margin	\$590,679	566,444	837,038	1,115,526	590,077
Rev./Rig Annualized	\$5,316,302	5,587,990	8,615,346	9,150,640	7,518,502
Exp./Rig Annualized	\$2,953,585	3,322,213	5,267,192	4,688,534	5,158,195
Margin Annualized	\$2,362,717	2,265,777	3,348,154	4,462,106	2,360,307
Gross Implied Margin	44%	41%	38.9%	49%	31%
Implied Daily Margin	6,473	6,208	9,173	12,225	6,467

Q3 2007	Patterson UTI	Pioneer	Unit	Union	Group Average
Land Revenues	\$428,316,000	106,515,937	157,769,000	76,938,000	201,986,019
Expenses	\$242,352,000	66,644,901	77,951,000	43,894,000	117,947,215
Rigs	406	68	128	71	154
Utilization	60%	90%	78%	70%	78%
Working Rigs	243	61	99.8	50	109
Revenue Per Rig	\$1,762,617	1,740,456	1,580,218	1,527,457	1,744,984
Expense Per Rig	\$997,333	1,088,969	780,759	871,431	1,010,039
Implied Rig Margin	\$765,284	651,488	799,459	656,025	734,944
Rev./Rig Annualized	\$7,050,469	6,961,826	6,320,873	6,109,827	6,979,935
Exp./Rig Annualized	\$3,989,333	4,355,876	3,123,037	3,485,726	4,040,157
Margin Annualized	\$3,061,136	2,605,950	3,197,837	2,624,102	2,939,777
Gross Implied Margin	43%	37%	51%	43%	42%
Implied Daily Margin	\$8,387	7,140	8,761	7,189	8,054

Table shows financial data for nine publicly held drilling companies from Q3 2007 SEC filings and/or news releases. These numbers are 'as is, where is' and do not constitute an endorsement or warranty.

The table includes a Group Average column for peer comparison. However it is instructive to look at the nine companies as a basket. In aggregate, operating margin fell for the fourth consecutive quarter, though the rate of decline slowed. Margin is down one percent to 41 percent of revenues during the quarter, or about where it was in Q2 2005. On an annualized basis, the average rig in this basket of nine companies generates \$7.3 million in top line revenues, which is up \$50,000 sequentially. The latest number reverses a two quarter sequential decline.

Top line quarterly revenue per rig rose \$14,000 to \$1.84 million for the national drillers. Expenses increased at a greater rate than revenues however. Expenses rose \$39,000 a day on a per rig basis and are up \$53 million to \$1.08 billion for the group of nine. Daily operating income declined \$323 per rig to \$8,338, which is about where it was at the end of 2005. Margin has declined \$2,236 versus

the Q3 2006 peak for this basket of nine national drillers.

There is churn in the market. For the quarter, PATTERSON-UTI and NABORS were down \$148 million and \$81.6 million respectively versus the Q3 2006 peak. Conversely, HELMERICH & PAYNE is up \$84.6 million, or 34 percent, during the same period on the basis of fleet expansion at term contract rates. Term contracts underwrite new construction. They also impact on industry averages. HP added \$600 to rig margin for this basket of nine publicly held land drillers and increased operating margin for the group by a full percentage point.

The influence of term contracts from headier times in 2006 somewhat distorts the quarter's Group Average column. For example, most national drillers saw top line per rig revenues between \$1.3 and \$1.7 million during the 90 day period. On the other hand GREY WOLF and HELMERICH & PAYNE generated per rig revenues above \$2 million, largely on the basis of term contracts. The two rose the group average to \$1.7 million in the Group Average column. In this case the average reflects a dividing line between those two drillers and the rest of the industry.

## Land Rig Newsletter Drilling Activity Oscillator

60-Day Outlook

Up



180-Day Outlook

Up



270-Day Outlook

Down



Let's see, oil up 45 percent year over year; natural gas up 16 percent. So why is rig count basically flat with the prior year? One theory involves people. At all levels of the oil and gas industry, companies are short people, reducing processing capabilities, creating backlogs, and slowing the field process. Permits. Accounts payable. Land issues. Roustabout crews. Location building. Name a sector and odds are very high that it is underperforming because of labor shortages. Those things compound through the system. Latent demand might therefore be higher than current activity levels, though it does not show in rig pricing because of expanded fleet capacity.

Though the natural gas situation looks problematic in 2008, no one wants to be on the wrong side of \$100 oil. That's powerful momentum,

and here's why. We looked a little deeper into the moving parts of the LRNL KEMPER OIL AND GAS MODEL and found that the percentage change in monthly oil and gas revenues for operators correlates very strongly with the directional change in monthly land rig count, lagged 90 days. The key is revenues derived from *both* oil and gas since correlation is less defined when using only natural gas revenues and gas rig count.

Some real world examples include a 17 percent drop in aggregate revenues for oil and gas companies in September 2006 followed by a significant pull back

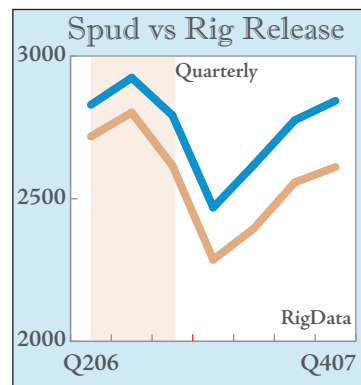
in rig count beginning in December 2006. Conversely a rise in oil and gas company revenues for February/March 2007 was followed by a jump in rig count in June 2007.

While this appears to be a predictive tool for determining the direction of future rig count, the challenge is that numbers are derived from the ENERGY INFORMATION ADMINISTRATION. The agency has a 90 day lag in getting the numbers compiled and posted.

Meanwhile the near-term oscillator turned positive on permit volume in Texas this month. The big change was in the six-month oscillator, which witnessed a seven percent value

gain, largest since October 2004. Conversely, the natural gas-based long-term indicator turned negative.

Graph at left shows quarterly trends for wells spud versus rigs released. A growing gap indicates expanding activity.



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