Financial Research & Analysis

Oil and Gas Accounting Hot Topics 2009 Webcast

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Today's Agenda

- Commodity Price Drives Impairment Charges
- Borrowing Bases and Covenant Compliance
- Modernization of SEC Reserve Disclosure
- LIFO Repeal and Other US Budget Proposals

Commodity Price Plunge Drove Impairments in 4Q08

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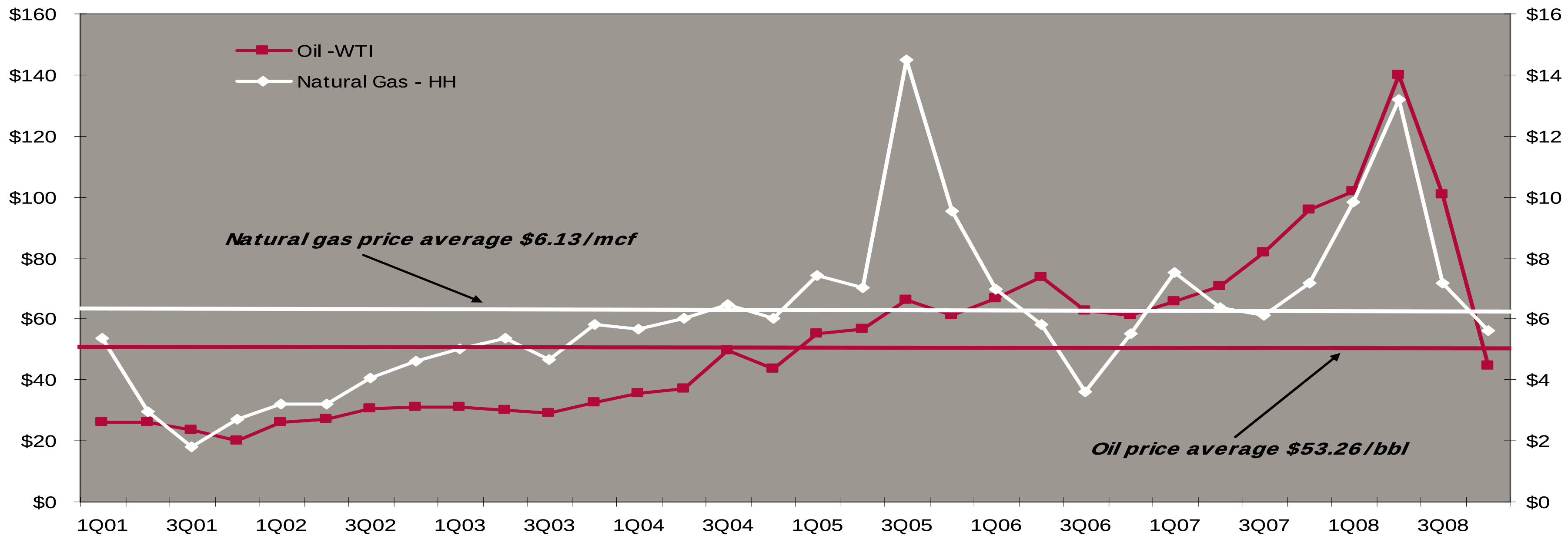
- Relative lack of impairments and price-related impairment charges over the past 6-7 years due to rising oil prices and decent natural gas price trends.
- Period end pricing most important for Full Cost (FC) companies as ceiling test charges based on those prices. This will change with new SEC rules as it goes to 12-month average.
- Although 3Q06 and 4Q06 were problematic on the natural gas price front, improved price by report date meant limited impairments in those quarters.

Chart 1: Quarterly Closing Oil and Natural Gas Prices 2001-2008 - Price Plunge Expected to Affect Reserve Estimates and Impairments



Source: NYMEX, RiskMetrics analysis

Full Cost Ceiling Test Charge Risk Fulfilled

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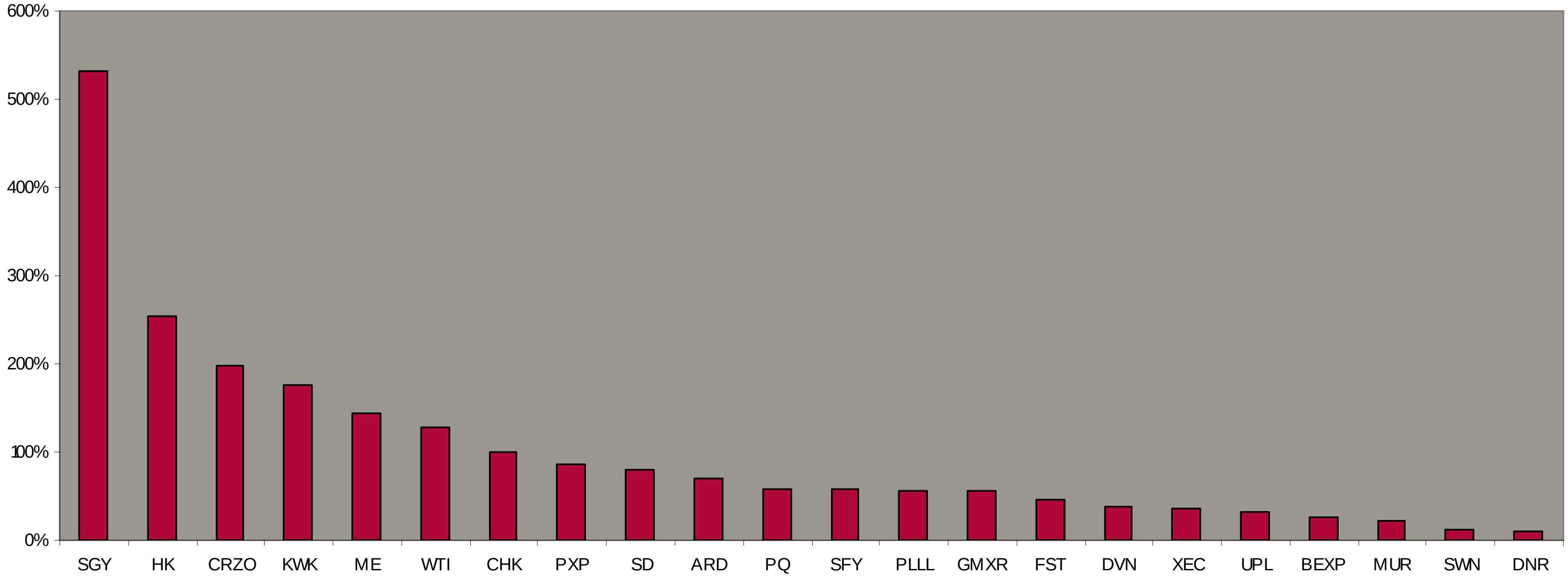
- Based on high capital spending during the first part of 2009 meant high risk of impairments for companies listed in Chart 2.
- Significant in the table below are SGY which took $1.3 billion ($850 million AT) impairment charge plus another $466 million in goodwill impairment after spending up for Bois D'Arc and HK which took a $951 million ($600 million AT) impairment charge. These were 107% and 33% of YE 2008 SEC Standardized Measure values.
- Although we expected DVN to take an impairment, at $10.4 billion pretax ($7.1 billion AT), the charge was 68% of DVN's 2008 SM.

Chart 2: FC US E&P Companies with September 2008 YTD Capital Spending Growth in Excess of 10%



Source: Company reports, RiskMetrics analysis

Successful Efforts Companies Not Immune

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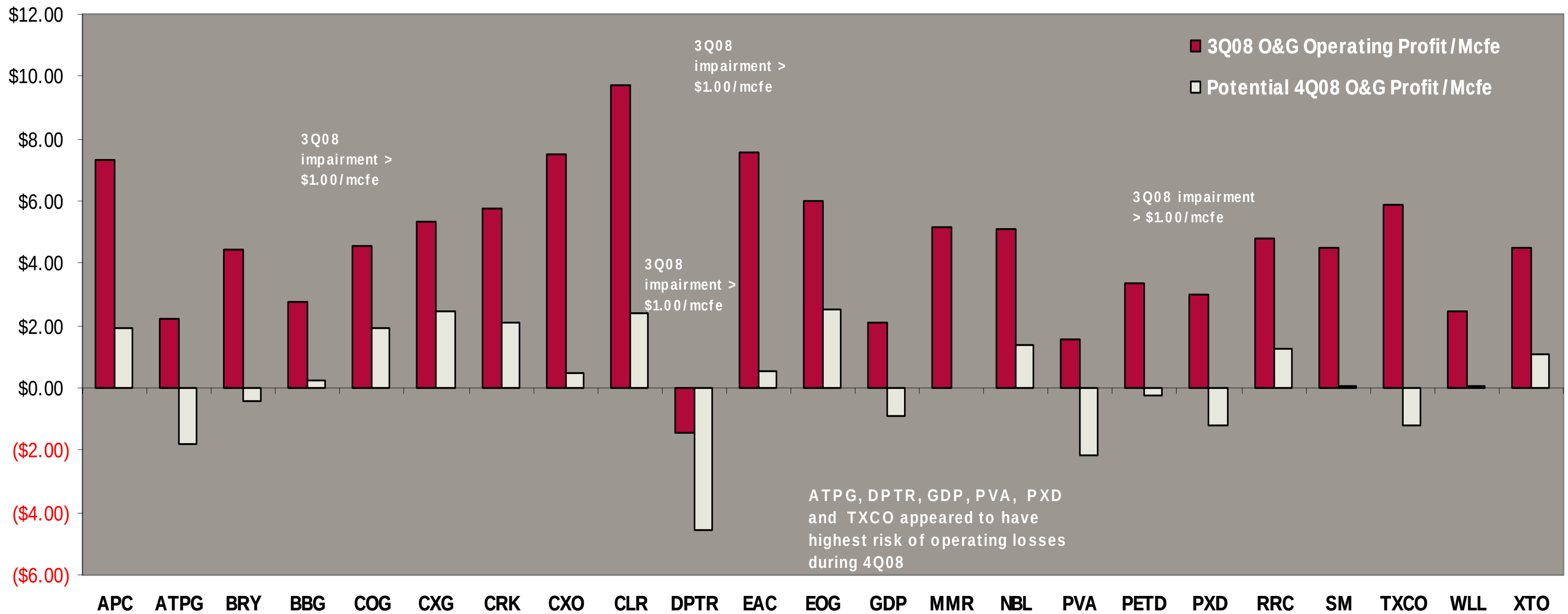
- Operating profit risk meant high risk of impairments for companies noted in Chart 3.
- Significant is DPTR which took a $327 million ($200 million AT) impairment charge which was 131% of YE SM. DPTR was in non-compliance with covenants at YE and had to renegotiate its credit agreement.
- TXCO has not yet reported but has already indicated it violated YE 2008

Chart 3: Successful Efforts Compananies are Expected to See Declines in Profits Raising Chance of 4Q08 Impairment Charges



Source: Company reports, RiskMetrics analysis

Impairment Drivers

- For FC companies, the SEC SM uses some of the same inputs as the ceiling test calculations
- Even though impairments are taken against the historical costs capitalized on the balance sheets, we like to compare the charges (for both SE and FC companies) to the SM values
- This comparison helps to highlight which companies may have been paying too much for their reserves based on current prices.
- Our review of 2008 SM tells us that price, not volume, was the primary driver in SM declines and also the most likely cause of the impairment charges.

Table 4: Top 10 Declines in SM

	2008 Change in SM	2008 Change in Reserves	2008 Change in Price	2007 SM	2008 SM	AT Impair. Charge	1QTD Price Change
PXP	-85%	-67%	-44%	7,623	1,136	2,300	-2%
CRK	-78%	-35%	-29%	2,944	636	106	-31%
DPTR	-77%	135%	-29%	702	159	209	-32%
WRES	-76%	-64%	-56%	819	194	176	-16%
WLL	-66%	-5%	-50%	4,012	1,376	7	-3%
PXD	-65%	0%	-41%	9,017	3,187	67	-14%
WTI	-64%	-15%	-41%	2,112	762	769	-13%
ARD	-64%	18%	-51%	1,276	461	0	0%
VQ	-63%	-3%	-46%	1,656	610	410	-9%
EAC	-63%	-20%	-51%	3,292	1,220	38	-4%

Source: Company reports, Capital IQ, NYMEX, RiskMetrics analysis

Natural Gas Price Decline Could Mean 1Q09 Impairments

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- Given continued fall in natural gas prices since YE 2008, there is further risk of impairments when 1Q09 is reported, particularly for FC leveraged to natural gas prices.
- The caveat to this is that any company that has cash flow hedges can use those to help the raise the FC ceiling.
- Lower natural gas prices will not directly affect SE companies impairment risk; the key for SE companies taking impairment charges is if they have been incurring operating loses and expect those losses to continued.
- Companies with Rocky Mountain exposure are more at risk than their peers – this exacerbated DPTR's problems.

Table 5: Natural Gas Prices Still Going Down

	12/31/2007	12/31/2008	3/9/2009
Crude Oil- WTI	$96.00	$44.60	$47.07
Natural Gas -- HH	$7.45	$5.63	$3.86
% change			
Crude Oil- WTI		-54%	6%
Natural Gas -- HH		-24%	-31%

Source: NYMEX

Table 6: Natural Gas Leveraged Companies

	2008 NG Reserves	Acctg. Method
CXG	100%	SE
MMR	100%	SE
SWN	100%	FC
COG	97%	SE
GDP	97%	SE
BBG	96%	SE
UPL	95%	FC
ROSE	95%	FC
HK	94%	FC
CHK	94%	FC

Source: Company reports, RiskMetrics analysis

List of Full Cost and Successful Efforts Companies

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Table 7: Full Cost vs. Successful Efforts Companies

Mid/Large Cap US E&P Companies			
Full Cost		**Successful Efforts**	
Apache Corp.	APA	Anadarko Petroleum Corp.	APC
Arena Resources Inc.	ARD	ATP Oil & Gas Corp.	ATPG
Brigham Exploration Co.	BEXP	Berry Petroleum Co.	BRY
Callon Petroleum Co.	CPE	Bill Barrett Corp.	BBG
Carrizo Oil & Gas Inc.	CRZO	Cabot Oil & Gas Corp.	COG
Chesapeake Energy Corporation	CHK	CNX Gas Corporation	CXG
Cimarex Energy Co.	XEC	Comstock Resources Inc.	CRK
Denbury Resources Inc.	DNR	Concho Resources, Inc.	CXO
Devon Energy Corporation	DVN	Continental Resources Inc.	CLR
EXCO Resources Inc.	XCO	Delta Petroleum Corp.	DPTR
Forest Oil Corp.	FST	Encore Acquisition Co.	EAC
GMX Resources Inc.	GMXR	EOG Resources, Inc.	EOG
Gulfport Energy Corp.	GPOR	Goodrich Petroleum Corp.	GDP
Harvest Natural Resources Inc.	HNR	McMoRan Exploration Co.	MMR
Mariner Energy, Inc.	ME	Noble Energy, Inc.	NBL
Murphy Oil Corp.	MUR	Occidental Petroleum Corporation	OXY
Newfield Exploration Co.	NFX	Penn Virginia Corp.	PVA
Parallel Petroleum Corp.	PLLL	Petroleum Development Corp.	PETD
Petrohawk Energy Corporation	HK	Pioneer Natural Resources Co.	PXD
PetroQuest Energy Inc.	PQ	Range Resources Corp.	RRC
Plains Exploration & Production	PXP	St. Mary Land & Exploration Co.	SM
Quicksilver Resources Inc.	KWK	TXCO Resources, Inc.	TXCO
Rosetta Resources, Inc.	ROSE	Whiting Petroleum Corp.	WLL
SandRidge Energy, Inc.	SD	XTO Energy Inc.	XTO
Southwestern Energy Co.	SWN		
Stone Energy Corp.	SGY		
Swift Energy Co.	SFY		
Ultra Petroleum Corp.	UPL		
Venoco, Inc.	VQ		
W&T Offshore Inc.	WTI		
Warren Resources Inc.	WRES		

Source: Company reports, RiskMetrics analysis

Revolving Credit and Cash on Hand are Required

- We have not yet release our annual reserve report but many companies experienced price-related negative reserve revision.
- Lower reported reserves combined with impairment charges and still lower prices, means E&P companies' liquidity will suffer.
- Given the market's disarray, the 54 names we reviewed are likely to be very reliant on their revolving credit facilities to help provide liquidity.
- All but 11 (listed below) of the 54 names we reviewed have limits to their borrowing capacity. These borrowing base limits are expected to move lower as banks factor in lower expected pricing, impairment charges, and inability to grow as quickly as companies seek to conserve cash.

Table 8: Companies without Borrowing Bases

Ticker	Market Cap.
APC	$16,625
APA	$18,960
DVN	$18,773
EOG	$13,483
MUR	$7,820
NFX	$2,762
NBL	$7,918
OXY	$43,610
PXD	$1,675
SWN	$9,625
UPL	$4,985
XTO	$17,530

Source: Capital IQs, RiskMetrics analysis

Borrowing Base Risk for Companies with Big Declines in SM

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- SM values can be used as a proxy for what banks calculations
- Watch out for companies with big declines in SM values that are also close to fully drawn on their revovler -- **DPTR** was clearly company with high level of risk as **BRY** and **CLR**.
- Commodity price change more important than reserve volume change in driving SM

Table 9: Borrowing Base Risk Companies Based on SM Decline

	2008 Change in SEC SM Value	2008 Change in Reserve Volume	2008 Change in Price	Recent or YE 2008 Borrowing Base	Recent or YE 2008 O/S Bank Facility	Availability	% Utilized	YE Cash	Total Recent Liquidity	YE 2008 Assets	Liquidity as % of Assets
DPTR	-77%	135%	-29%	225	294	(69)	131%	77	8	1,895	0%
BRY	-53%	45%	-49%	1,200	957	243	80%	0	243	2,542	10%
ARD	-64%	18%	-51%	150	0	150	0%	58	208	592	35%
CLR	-51%	18%	-50%	673	474	198	71%	5	203	2,216	9%
PETD	-53%	10%	-25%	375	195	181	52%	51	231	1,403	17%
OXY	-61%	4%	-49%	1,500	0	1,500	0%	1,777	3,277	41,537	8%
PXD	-65%	0%	-41%	1,500	913	587	61%	48	635	9,163	7%
APA	-58%	-2%	-41%	2,650	100	2,550	4%	1,973	4,523	29,186	15%
NBL	-58%	-2%	-37%	2,100	1,606	494	76%	1,140	1,634	12,384	13%
VQ	-63%	-3%	-46%	200	135	65	68%	0	65	864	8%
DVN	-55%	-3%	-39%	3,350	0	3,350	0%	379	3,729	31,908	12%
WLL	-66%	-5%	-50%	900	623	277	69%	10	287	4,029	7%
MMR	-57%	-5%	-40%	400	100	300	25%	93	393	1,336	29%
APC	-59%	-6%	-39%	1,300	0	1,300	0%	2,360	3,660	48,923	7%
PLLL	-51%	-13%	-50%	230	225	5	98%	41	46	551	8%
WTI	-64%	-15%	-41%	500	0	500	0%	358	858	2,056	42%
EAC	-63%	-20%	-51%	1,100	725	375	66%	2	377	3,633	10%
SM	-61%	-20%	-40%	500	300	200	60%	7	207	2,695	8%
SFY	-59%	-22%	-43%	400	181	219	45%	0	220	1,517	14%
CRK	-78%	-35%	-29%	590	35	555	6%	55	610	1,578	39%
WRES	-76%	-64%	-56%	135	112	23	83%	30	52	287	18%
PXP	-85%	-67%	-44%	2,300	1,305	995	57%	312	1,307	7,112	18%

Source: Company reports, Capital IQ, NYMEX, RiskMetrics analysis

Bad Liquidity is BAD even without BB Issues

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- We look at total liquidity as a percentage of total assets since we know that this is something that the SEC uses – they questioned CHK about this very issue in May 2008 in a comment letter.
- We calculated total liquidity as cash plus revolver availability.
- The 10 worst names for liquidity are noted below -- this is based on 12/31/08 results.
- DPTR tops the list.
- XTO and CHK have improved their positions since year end – XTO by monetizing derivatives and CHK by (a) asset sales and (b) issuing notes.
- For CHK, this has not helped its leverage but it will be crucial to see that its revolver remains somewhat undrawn when 1Q09 is reported since it has not been that way in over a year. Each offering or asset sale has gone towards the revolver with the revolver then nearly fully utilized again.

Table 10: Low Liquidity at YE 2008

	Total Recent Liquidity	YE 2008 Assets	Liquidity as % of Assets
DPTR	8	1,895	0%
XTO	968	38,254	3%
CHK	1,775	38,444	5%
COG	193	3,702	5%
XCO	257	4,822	5%
CXG	114	2,125	5%
PVA	165	2,997	6%
PQ	44	670	7%
XEC	281	4,165	7%
PXD	635	9,163	7%

Source: Company reports, Capital IQ, RiskMetrics analysis

1Q09 to date Access to Capital Markets

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- **APC**: Issued $1.1 billion in debt
- **ATPG**: $150 million GE investment
- **BRY**: $154 million in assets sales plus filed a shelf registration on 2/25/09
- **BBG**: $173 million in convertible senior notes
- **CHK**: $1.4 billion in notes; $412 million in asset sales
- **DPTR**: Announced a $145 million rights offering
- **DNR**: Senior subordinated notes
- **DVN**: $1.2 billion in notes
- **FST**: $600 million notes private placement
- **NBL**: $1.0 billion in 10-year notes
- **PLLL**: Farm-out to CHK
- **HK**: $385 million secondary offering; $600 million in notes
- **PXP**: $365 million in notes
- **SD**: $244 million preferred stock private placement
- **VQ**: $201 million asset sale
- **WLL**: $235 million asset sale
- **XTO**: Monetized $2.2 billion in hedges

Source: Company reports

Key E&P Financial Covenants

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- **Debt/Total Capitalization (D/TC)**: Total Debt less Cash and Equivalents divided by Total Debt less Cash and Equivalents plus Total Equity. This covenant most typically governs covenant issues for the larger, better capitalized companies, with 60%-65% ND/TC being a normal limit.
- **Current ratio (CR)**: Current Assets divided by Current Liabilities. This is typically based on quarter end values. For some companies, the banks allow the inclusion on availability on the revolver to be included in Current Asset totals. It was **DPTR**'s current ratio that caused it to not be in compliance with covenants at year-end 2008, thus forcing a bank debt renegotiation. Additionally, although **TXCO** has not yet reported, the company put out a press release on February 27, 2009 that indicated that as of December 31, 2008 it was in violation of this covenant.
- **Leverage ratio**: Debt divided by EBITDA (or EBITDAX for Successful Efforts companies). The EBITDA (Earnings before interest, taxes and depreciation/amortization) is typically adjusted for one-time items including impairment charges, non-cash derivative gains/losses and other non-recurring items. EBITDAX is EBITDA with the addition exploration expense being added back. EBITDA(X) is typically as a four-quarter rolling sum. This covenant is more typically found in credit agreements for smaller, more leveraged E&P companies
- **Interest Coverage Ratio**: This is generally EBITDA (or EBITDAX for Successful Efforts companies) divided by Interest Expense. The EBITDA is typically adjusted for one-time items including impairment charges, non-cash derivative gains/losses and other non-recurring or non-cash items. The time-frame for this item can either be the current quarter or is on a rolling four-quarter basis. This covenant is more typically important for the smaller, more leveraged E&P companies.
- Other ratios include a variety of minimum asset coverage, fixed charge coverage or tangible net worth figures.

Key E&P Financial Covenants (continued)

- Next 2 pages include key covenants for all 54 companies – only DPTR are not in compliance at YE but our work indicates potential problems for ATPG, BRY, DPTR, GMXR, ME, PLLL, HK, PXP, VQ and WRES.
- We calculate these covenants just on 4Q08 (vs. rolling four-quarters) EBITDA(X) which is likely to skew the results but can highlight potential future problems. Additionally, we may not be making all the allowed adjustments.
- Also many companies are allowed to include unused portion of credit facility in current assets for CR calculation.

- Companies are being proactive in getting waivers or renegotiations but this costs them as shown by this disclosure in BRY's 2/24/09 press release:

On February 19, 2009, the Company executed a second amendment to its senior secured credit facility which, among other things, increased the maximum EBITDAX to total funded debt ratio to 4.75 through year-end 2009, to 4.50 through year-end 2010 and to 4.00 thereafter. Additionally, the write off of $38.5 million to bad debt expense associated with the bankruptcy of Big West of California will be excluded from the calculation of EBITDAX. The LIBOR and prime rate margins increased to between 2.25% and 3.0% based on the ratio of credit outstanding to the borrowing base. Additionally, the annual commitment fee on the unused portion of the credit facility increased to 0.50%, regardless of the amount outstanding.

Covenant Table

Table 11: Covenant Disclosure

	Debt to Capital	Current Ratio (not less than)	Leverage Ratio (not more than)	EBITDA to Int. Exp. (not less than)	Asset Coverage (not less than)	Reserve Coverage (not less than)	Fixed Charge Coverage (not less than)	Min. Tangible Net Worth (absolute)	No Financial Covenants	YE Net Debt to Total Cap.	YE 2008 Current Ratio	YE 2008 Leverage Ratio	4Q08 EBTIDA/Int. Expense
APC	65%									34.7%	1.0	9.1	7.4
APA	60%									14.7%	1.7	4.1	21.4
ARD										-13.8%	4.5	0.0	nmf
ATPG		1.00	3.00	2.50		0.50				78.5%	1.1	30.0	2.1
BRY		1.00	4.75	2.50						58.3%	0.7	14.6	8.1
BBG		1.00	4.50							26.1%	1.4	4.3	22.6
BEXP									X	na	na	na	na
COG				2.80	1.50					31.9%	1.2	5.6	11.4
CPE		1.00	4.00				2.50			na	na	na	na
CRZO		1.00	3.25	3.00		2.00				na	na	na	na
CHK	70%		3.75	X	X					43.3%	1.2	11.5	12.1
XEC		1.00	3.00				2.25			20.0%	1.1	8.2	78.0
CXG			3.00	3.00						6.4%	0.9	0.8	24.1
CRK		1.00						X		12.7%	1.1	3.1	32.4
CXO		1.00		4.00						31.9%	1.0	6.2	11.1
CLR		1.00	3.75							28.1%	0.7	4.2	26.1
DPTR		1.00	4.00	X	X					53.6%	0.4	42.3	1.6
DNR										31.3%	1.1	7.6	10.2
DVN	65%									24.3%	0.9	3.7	23.4
EAC		1.00		2.50						50.1%	1.5	15.4	4.6
EOG	65%									14.8%	1.2	1.5	69.3
XCO		1.00	4.00	2.50						69.0%	1.6	11.5	4.3
FST										62.0%	0.9	14.1	4.9
GMXR		1.00		3.00				X		45.3%	0.7	16.8	4.6
GDP		1.00		3.00	1.50					13.6%	1.9	10.2	6.4
GPOR			2.00	3.00						na	na	na	na
ME		1.00	2.50							51.0%	0.9	8.4	50.5

Source: Company reports, Capital IQ, RiskMetrics analysis

Covenant Table (continued)

Table 11: Covenant Disclosure (continued)

	Debt to Capital	Current Ratio (not less than)	Leverage Ratio (not more than)	EBITDA to Int. Exp. (not less than)	Asset Coverage (not less than)	Reserve Coverage (not less than)	Fixed Charge Coverage (not less than)	Min. Tangible Net Worth (absolute)	No Financial Covenants	YE Net Debt to Total Cap.	YE 2008 Current Ratio	YE 2008 Leverage Ratio	4Q08 EBTIDA/Int. Expense
MMR			X							47.2%	1.0	9.2	3.9
MUR	60%									5.4%	1.5	1.8	126.1
NFX	60%			3.50	X					40.2%	1.1	10.3	17.8
NBL	60%									15.1%	1.8	5.6	23.9
OXY										3.4%	1.2	1.4	54.9
PLLL			4.25					X		75.5%	1.5	21.1	2.6
PVA			3.50	2.50						52.4%	1.1	11.2	8.0
HK		1.00		2.50						38.9%	0.9	15.5	3.0
PETD		1.00	3.75							40.2%	1.1	2.9	15.0
PQ		1.00	3.00							51.8%	1.4	6.2	15.9
PXD	60%				1.75					44.9%	0.7	12.1	7.1
PXP			4.25							51.2%	1.5	21.4	4.4
KWK		X	X	X						70.4%	0.9	17.6	3.5
RRC		1.00	4.00							42.1%	1.1	6.2	10.5
ROSE		1.00	3.50							26.1%	1.3	4.5	19.4
SD		1.00	4.50	2.50						74.7%	0.9	7.8	5.2
SWN	60%			3.50				X		17.7%	1.1	2.6	65.8
SM		1.00	3.50							34.0%	1.1	3.6	37.4
SGY			3.25	3.00						56.3%	1.4	10.1	30.1
SFY		X	X	X						50.1%	0.5	6.0	13.9
TXCO		1.00	3.50	2.00	1.50					na	na	na	na
UPL			3.50		1.75					33.8%	0.6	3.8	23.8
VQ		1.00	4.00							120.3%	1.0	20.8	2.8
WTI										34.1%	1.6	32.0	2.1
WRES		1.10		2.50						43.0%	0.8	40.8	1.9
WLL		1.00	3.50				2.00			40.5%	0.6	10.1	7.5
XTO										40.8%	1.5	8.2	8.6

Source: Company reports, Capital IQ, RiskMetrics analysis

Modernization of SEC Oil & Gas Reserve Disclosure

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- Effective for filings after 12/31/09
- 12-month average pricing vs. period end
- Elimination of ceiling test charge reconsideration
- Increased level of disclosure
- Optional disclosure of probable and possbile
- Optional disclosure of reserve price sensitivity
- Expansion of technologies allowed
- Enhanced disclosure of the technologies used
- Elimination of the “one offset” rule
- Development plan for PUD; 5-year limt
- Non-traditional reserves
- Required disclosure of external reserve services qualifications.

Table 12: Resource Companies Helped by New Disclosure Rules

Above Average Beneficiaries of Allowed New Technologies and/or Elimination of the "One Offset" Rule		
Anadarko Corp (APC)	Denbury Resources (DNR)	Petroleum Dev. Corp. (PETD)
Bill Barrett Petroleum (BBG)	Devon Energy (DVN)	PetroQuest Energy (PQ)
Brigham Exploration (BEXP)	EOG Resources (EOG)	Pioneer Nat. Resources (PXD)
Cabot Oil & Gas (COG)	EXCO Resources (XCO)	Plains Exploration (PXP)
Carrizo Oil & Gas (CRZO)	Gulfport Energy (GPOR)	Quicksilver Resources (KWK)
Chesapeake Energy (CHK)	Newfield Exploration (NFX)	Range Resources (RRC)
Cimarex Energy (XEC)	Noble Energy (NBL)	Southwestern Energy (SWN)
CNX Gas (CXG)	Parallel Petroleum (PLLL)	Ultra Petroleum (UPL)
Comstock Resources (CRK)	Penn Virginia (PVA)	XTO Energy (XTO)
Continental Resources (CLR)	PetroHawk (HWK)	

Table 13: Gulf of Mexico is a Relative Loser

Gulf of Mexico Exposure	
Apache Corp. (APA)	Stone Energy (SGY)
Callon Petroleum (CPE)	Swift Energy (SFY)
Mariner Energy Inc. (ME)	W&T Offshore Inc. (WTI)
McMoran Exploration Co. (MMR)	

Table 14: Oil Sands Reserves Can Now be Reported

Oil Sands Exposure	
British Petroleum (BP)	Imperial Oil (IMO)
Canadian Natural Resources (CNQ)	Marathon (MRO)
Chevron (CVX)	Murphy Oil (MUR)
ConocoPhillips (COP)	Nexen Corp (NXY)
Devon Energy (DVN)	Petro-Canada (PCZ)
Encana (ECA)	Royal Dutch Shell (RDS.A)
ExxonMobil (XOM)	Statoil (STO)
Gulfport Energy (GPOR)	Suncor (SU)
Hess Energy (HES)	Total Energy (TOT)
Husky (HSE-T)	

Source: Company reports, Factset, RiskMetrics analysis

PUD Development Plan May Limit Reserve Potential

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- PUDs will have a 5-year limit unless specific circumstances (i.e. long lead time international project) call for a longer timeframe.
- This time limit serve as a governor to PUD reserve revisions expected with the elimination of the one offset rule and allowance of new technologies.
- We are not certain how this will be monitored by the SEC.
- Companies with long PUD reserve lives at YE 2007 are listed in Table 14.

Table 15: PUD Limits for the First Time

	Reserve Life	PUD Ratio	PUD Reserve Life
WRES	57.4	75%	43.1
GMXR	50.6	64%	32.6
ARD	35.4	64%	22.5
GDP	21.0	69%	14.6
PXP	29.9	49%	14.6
DPTR	21.1	68%	14.4
GPOR	17.8	72%	12.8
CPE	15.2	81%	12.3
UPL	24.6	47%	11.7
CXG	23.1	50%	11.6
KWK	19.9	58%	11.5
PETD	24.6	46%	11.4
PXD	23.3	38%	8.9
CXO	18.1	46%	8.4
CRZO	15.2	53%	8.1
BEXP	15.2	51%	7.7
PVA	18.1	41%	7.5
ATPG	11.2	65%	7.3
PLLL	16.6	44%	7.3
SFY	12.5	55%	6.8
BRY	17.2	39%	6.8
XTO	17.0	37%	6.2
RRC	15.8	38%	6.0
WLL	17.1	33%	5.7
CHK	15.2	36%	5.5
EAC	17.1	32%	5.5
VQ	14.0	39%	5.4

Source: Company reports, Capital IQ, RiskMetrics analysis

LIFO Repeal Hurts Energy Companies

RiskMetrics Group

- Energy names, particularly refiners and integrateds that use LIFO inventory accounting, and are big CO2 emitters, would see their CFFO decline under Obama's LIFO repeal and "cap and trade" proposals.

- In a period of rising commodity prices, LIFO
  - * Lowers inventory levels held on the B/S
  - * Increases cost of goods sold (COGS) on the I/S
  - * Decreases operating proit reported on the I/S
  - * Lowers taxes paid

- Based on YE 2008 LIFO reserves, if LIFO was repealed, there would be a much smaller tax bill than a year earlier.

- While CVX and XOM would bear the largest portion of this burden, on a relative basis, it would hurt COP and SUN the most from a liquidity perspective.

- This assumes a one-time hit but the blueprint assumes the increase begins in 2012 and then moves higher. This implies either a phase in or the assumption of higher future prices since the only way FIFO would raise higher taxes than LIFO is if prices are moving up.

- Inventory accounts would be more reflective of current prices under FIFO.

Table 16: LIFO Expected to Raise Tax Bill

	Tax Bill Based on YE 2007	Tax Bill Based on YE 2008	YE 2008 Cash	2008 CFFO
COP	2,400	705	755	5,042
CVX	2,505	3,372	9,347	12,551
HES	370	180	908	129
MRO	1,452	280	1,285	1,347
MUR	256	73	666	717
XOM	9,144	3,600	31,437	44,226
FTO	0	0	484	80
HOC	72	12	41	98
SUN	1,392	504	240	(565)
TSO	504	tbd	20	0
VLO	2,232	247	940	130
WNR	92	tbd	tbd	0

Source: Company reports, Capital IQ, RiskMetrics analysis

Table 17: Decline in LIFO Reserve Drive Lower Tax Bill vs. a Year Ago

	2007	2008	YOY Change
COP	6,668	1,959	-71%
CVX	6,958	9,368	35%
HES	1,029	500	-51%
MRO	4,034	777	-81%
MUR	710	202	-72%
XOM	25,400	10,000	-61%
FTO	0	0	nmf
HOC	199	33	-83%
SUN	3,868	1,400	-64%
TSO	1,400	tbd	tbd
VLO	6,200	686	-89%
WNR	256	tbd	tbd

Source: Company reports, RiskMetrics analysis

Other Items in Obama's Budget Blueprint

- **Cap-and-trade program:** Based on what this program is expected to fund ($15 billion in annual "clean energy" investment and $64 billion in permanent middle class tax cuts), the government expects at least $79 billion annually in higher revenues. This is expected to come from high CO2 emitting industries which includes the oil & gas industry, notably on the refining side. Though not in the budget blueprint, the EPA recently indicated that it wants companies to start reporting emissions – this sets the stage for determining potential financial exposure on a company specific basis.
- **Excise Tax**: A proposed excised tax is expected to raise more than $5 billion. The main purpose of this is to offset the impact of the lack of price triggers for certain deepwater Gulf of Mexico leases signed 1998-1999. Although the some of the leaseholders had indicated a willingness to renegotiate the affected leases, more than 80% did not. Recent court rulings in the companies' favor is likely what led to the Administration seeking this option.
- **Elimination of certain tax credits**: This includes disallowing the manufacturing tax credit only for the oil & gas industry. This lowers the incentive for refiners to expand domestically. Ending this item is expected to bring in $13 billion over a decade. Other items are elimination of enhanced oil recovery tax credit and the marginal well tax credit. More than 20% of US oil production comes from marginal wells. Without this tax credit, the wells become more uneconomic and may be shut-in.
- **New fees:** This includes placing a "use it or lose it" fee on non-producing energy leases on federal lands (including the Gulf of Mexico). This is expect to raise $1.2 billion between 2010 and 2019. Additionally, the government seeks a processing fee for drilling permits issued for federal land.
- **Intangible Drilling Costs (IDC)**: Certain of these will no longer be allowed although greater clarification is needed regarding if the disallowance will affect just some or all of the IDCs. If it is all, it could dramatically affect some small producers' ability to internally fund their drilling programs.

Energy Reports 2008-2009

Company

- Chesapeake Energy Corporation (oil & gas)
- Sunpower Corporation (solar)
- Yingli Green Energy Holding (solar)
- Albemarle Corporation (refining related)

Industry

- New Borrowing Bases May Squeeze Liquidity
- LIFO Repeal and Other US Budget Proposals Hurt Energy Companies
- What You Need to Know for Oil & Gas Accounting in 2008
- Integrated Oil and E&P Company: Financial Statement Acquisition Metrics
- Integrated Oil Company Cash Flow and Growth Metrics
- Identifying Oil & Gas Companies with Cash Sourcing and Growth Risk
- Oil Products Inventory and Margin Monitor (quarterly)
- SEC: Possible Revisions to Oil & Gas Disclosure
- SEC: Proposed Modernization of Oil & Gas Reporting Rules
- Scrutinizing Independent Producers' Reserves Year-end 2007
- Overview of Accounting for Commodity Derivatives
- Overview of Financial Statement Risk at Solar Energy Companies

Energy Research Notes 2008-2009

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Advantage Energy Income Fund	Encore Acquisition Company	Nexen, Inc.
Atwood Oceanics, Inc.	Enerplus Resources Fund	Peabody Energy Corporation
Atmos Energy Corporation	Energy Solutions Inc.	Precision Drilling Trust
Baker Hughes Inc.	Enterra Energy Trust	Pride International, Inc.
Baytex Energy Trust	ExxonMobil Corporation	Puget Energy, Inc.
Cameron International Corporation	Flotek Industries, Inc.	Rowan Companies, Inc.
Carbon Ceramics Inc.	Forest Oil Corporation	Schlumberger Limited
Cheniere Energy, Inc.	Harvest Energy Trust	Tesco Corporation
Chesapeake Energy Corporation	ION Geophysical Corporation	Tesoro Corporation
ChevronTexaco Corporation	JA Solar Holdings Co., Ltd.	Transocean, Inc.
Crosstex Energy LP	KBR, Inc.	XTO Energy, Inc
Dril-Quip, Inc.	Methanex Corporation	