

Evaluating and Acquiring Oil & Gas Companies

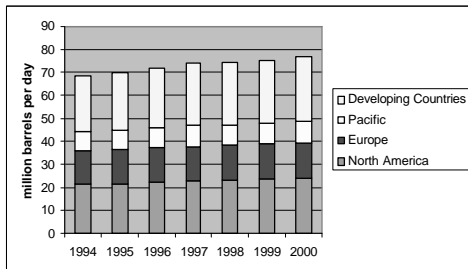
Kurt H. Wulff
McDep Associates

New England Energy Growth
Conference
Prout's Neck, Maine
September 25, 2000

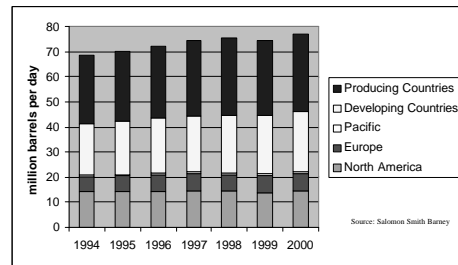
Summary and Conclusion

- ♦ Oil and gas commodity prices may be stronger and more volatile than commonly expected
- ♦ Petroleum cycle repeating
- ♦ Valuation increasingly sophisticated in the quantitative sense
- ♦ Smart people can still make dumb decisions
- ♦ Sound judgment invaluable

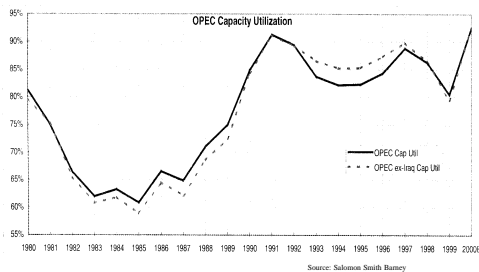
Oil Demand Grows



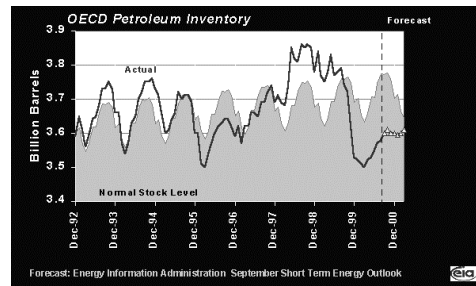
Oil Production Restrained



Spare Capacity Slim

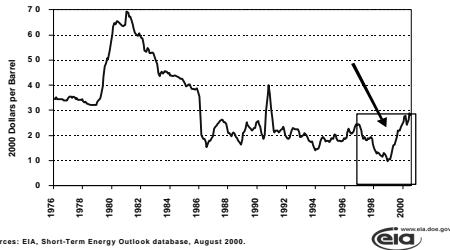


Oil Inventories Depleted



Oil Price Highest Since Last Crisis

Monthly World Oil Prices, 1976 - 2000

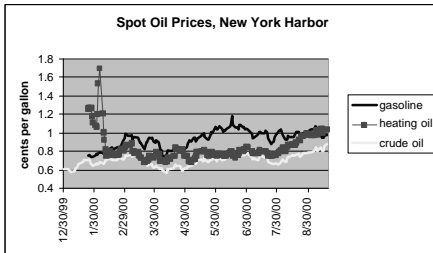


2004 Oil Only \$23



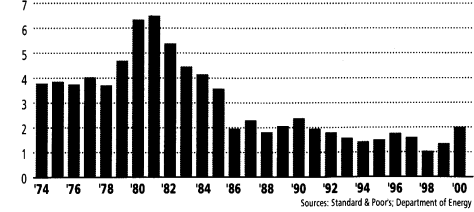
Vulnerable to Shortages

Spot Oil Prices, New York Harbor



Consumer Can Sustain Some Higher Price

Cost of oil and natural gas liquids as a % of GDP in current dollars

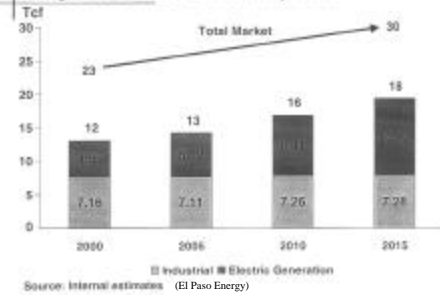


Natural Gas Demand Overcomes Weather

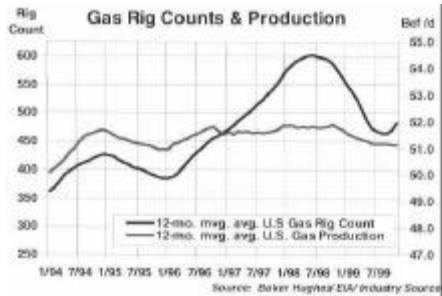
- ◆ New economy needs electricity
- ◆ Thermal efficiency breakthrough in electrical generation
- ◆ Power producers long electricity and short natural gas

Electric Powers U.S. Natural Gas Demand

Projected Gas Consumption

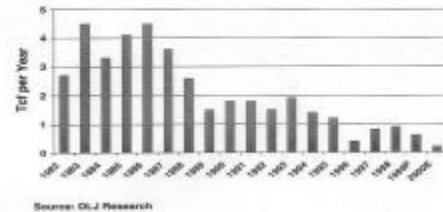


U.S. Natural Gas Production Stalls



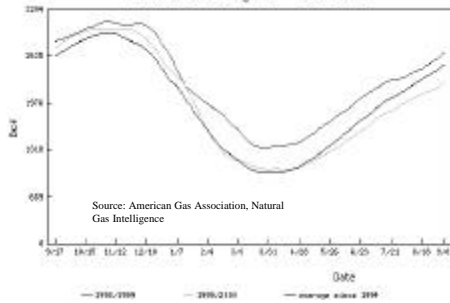
Natural Gas Spare Capacity Low

Excess Natural Gas Deliverability U.S. and Canada



Natural Gas Inventories Low

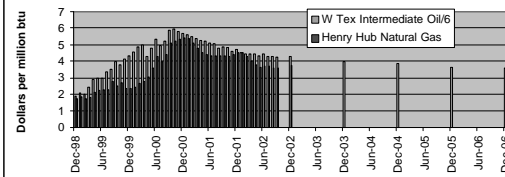
Estimated Working Gas - Total U.S.



Natural Gas Price Bumping Oil Price Ceiling

New York Mercantile Exchange Futures, 9/15/00

Cash Historical



Consumer Can Sustain Some Higher Price

- ◆ Cleaner fuel
- ◆ Alternatives not competitive for electrical generation
 - Old plants can run on residual oil that costs \$0.80 per gallon or \$5.50 per million btu
 - New plants can run on distillate oil that costs \$1 per gallon or \$7 per million btu

Economic Conclusion

- ◆ Oil and gas price may be stronger than expected in the coming decade

Oil and Gas Through the Decades

- ◆ 1960s: Growth
- ◆ 1970s: Shortage
- ◆ 1980s: Balance
- ◆ 1990s: Growth
- ◆ 2000s:

1960s

- ◆ Energy demand strong
- ◆ Monetary inflation subdued
- ◆ Economic boom continues
- ◆ Integrated oil companies do well
- ◆ North American oil and gas producers depressed

1970s

- ◆ Shortages develop
- ◆ Oil producing countries assert control
- ◆ Inflation picks up
- ◆ North American producers soar in resource value and stock market value

1980s

- ◆ Demand/supply balance restored
- ◆ Inflation subsides
- ◆ Bull market resumes for stocks
- ◆ Integrated oil companies meet takeover pressure
- ◆ Overly aggressive independent producers suffer

~~1960s 1990s~~

- ◆ Energy demand strong
- ◆ Monetary inflation subdued
- ◆ Economic boom continues
- ◆ Integrated oil companies do well
- ◆ North American oil and gas producers depressed

~~1970s 2000s?~~

- ◆ Shortages develop
- ◆ Oil producing countries assert control
- ◆ Inflation picks up
- ◆ North American producers soar in resource value and stock market value

What Is Different?

- ◆ The world is at relative peace
- ◆ Better government
- ◆ The Second Industrial Revolution is here
- ◆ Resource base more exploited

Valuation Today – Cash Flow

- ◆ Enterprise Value divided by next four quarters earnings before interest, tax, etc.

	Wellhead Price (\$/mcf)	Margin (%) (\$/mcf)	Volume (bcf)	Ebida (\$mm)	EV/ Ebida
Dorchester Hugoton, Ltd.	4.55	76	3.43	6.5	22.2
Hugoton RT (42.5%)	4.37	75	3.29	29.6	97.4
Cross Timbers Royalty Trust	4.76	75	3.58	5.0	17.8
San Juan Basin Royalty Trust	4.11	81	3.34	32.2	107.6
Burlington Resources	3.77	76	2.86	901	2,574

Source: www.mcdep.com

Valuation Today – Reserves

- ◆ Present value of future cash flow

Basic (bcf)	Volume Enhanced (bcf)	Total (bcf)	Price (\$/mcf)	Cap Ex (\$mm)	Cash Flow (\$mm)	Present Value (\$mm)
7983	11025	19009	3.87	17241	35216	15100

Valuation Today - Debt Adjustment

- ◆ Market Cap and Debt to Present Value (McDep)

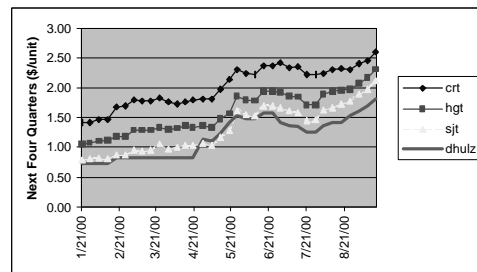
		Price (\$/sh)	8-Sep 2000	Shares (mm)	Market Cap (\$mm)	Debt (\$mm)	Net Present Value (\$/sh)	McDep Ratio
Dorchester Hugoton, Ltd.	DHULZ	14.81	10.7	159	-	15.40	0.96	
Hugoton RT (42.5%)	HGT	13.38	17.0	227	-	15.90	0.84	
Cross Timbers Royalty Trust	CRT	15.25	6.0	92	-	19.20	0.79	
Burlington Resources	BR	39.50	216	8,500	3,200	55.10	0.77	
San Juan Basin Royalty Trust	SJT	10.50	46.6	489	-	14.40	0.73	

Source: www.mcdep.com

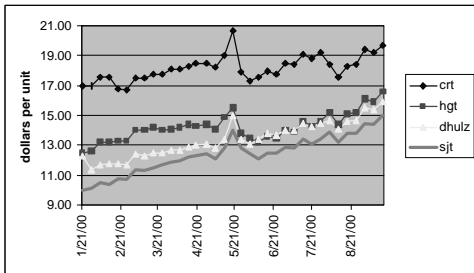
Valuation Today - Frequent Updates

- ◆ Interest and inflation rate
- ◆ Commodity price
- ◆ Volumes
- ◆ Costs
- ◆ Stock prices

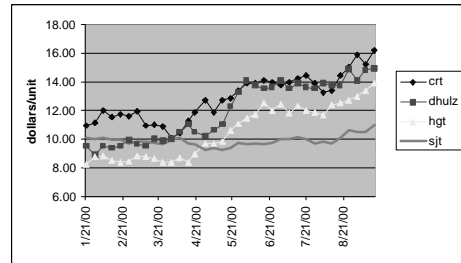
Valuation Trends – Projected Distribution



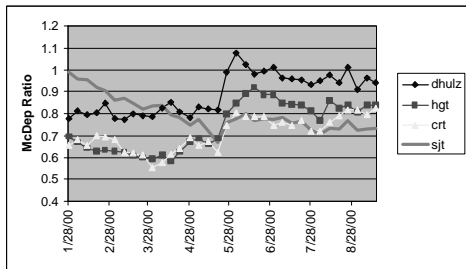
Valuation Trends – Present Value



Valuation Trends – Stock Price



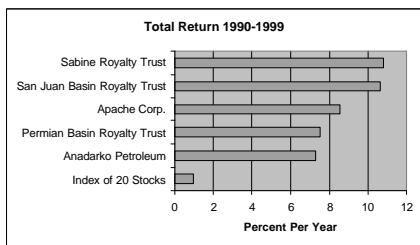
Valuation Trends – McDep Ratio



Valuation Today – Qualitative Factors

- ◆ Assets
 - Long-Term Credibility
 - Commitment
- ◆ Management

Some Assets Beat Management in U.S. Independent Oil & Gas



Long-term Credibility

- ◆ Some have it
 - Apache
 - Anadarko
 - Devon
- ◆ Some don't
 - Pennzoil
 - Union Pacific Resources
 - Burlington Resources

Commitment

- ◆ Annoying moments in the life of an investor
 - Hear management tell how great their company is at a high stock price
 - Then at a later time hear the same management say what a good deal it is to sell company at a lower stock price
- ◆ Non-performers buy high, sell low

Who Has Not Performed: Pennzoil

- ◆ Refused \$84 a share offered by Union Pacific Resources in 1998.
- ◆ Spun off PennzEnergy in 1999.
- ◆ Two pieces priced under \$10 each in the stock market at low point.
- ◆ Sold PennzEnergy to Devon Energy in 2000 for stock now worth about \$25.

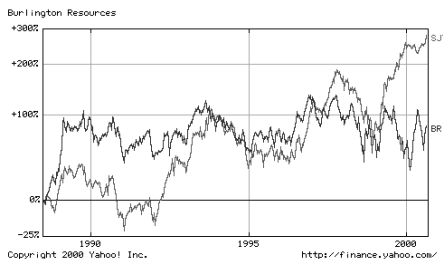
Who Has Not Performed: Union Pacific Resources

- ◆ Choice Land Grant assets spun off from Union Pacific Railroad in 1997 at about \$25 a share.
- ◆ Spurned by Pennzoil, bought Norcen Energy for cash in 1998.
- ◆ High financial leverage drove stock to single digits in 1999.
- ◆ Sold to Anadarko in 2000 for stock now worth about \$23.

Who Has Not Performed: Burlington Resources

- ◆ Same producing properties as San Juan Basin Royalty Trust.
- ◆ Diversified to Gulf of Mexico without success.
- ◆ Acquired Louisiana Land; diluted stock.
- ◆ Acquired Poco; Canadians dumped BR stock.
- ◆ Sold half of 2000 gas in 1999 at low price.

Burlington Resources (BR)/ San Juan Basin RT (SJT)



Recap

- ◆ Current demand/supply balance tight
- ◆ Oil and gas faces several years of better returns similar to the 1970s
- ◆ There will still be volatility
- ◆ Some management have credibility while others destroy value
- ◆ Skillful valuation enhances performance