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PRESENTATION ON ALASKA PPT

to House Resources Committee
March 13, 2006

Analysis of PPT

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Econ One Research, Inc.

- An economic research and consulting firm with offices in California (Los Angeles and Sacramento) and Texas (Houston and Austin)
- We provide consulting services in various industries, including petroleum and natural gas, regulated utilities, electricity, telecommunications, and computer software
- We have worked for:
  - A number of state governments on energy-related matters, including the States of Alaska, California, Hawaii, Louisiana, New Mexico, New York, and Texas
  - Federal government agencies, including the Department of Justice, the Federal Trade Commission, the Department of the Interior, and the President's Council of Economic Advisors
  - A number of foreign countries and international agencies, including the World Bank, Mexico, Nigeria, Turkey, and Tanzania on matters related to economic development and privatization of state-owned utilities
  - A number of companies in the petroleum and natural gas industries, including BP, Occidental Petroleum, ANR Pipeline, Koch Gateway Pipeline, Sempra Energy, KN Energy Corp., Lyondell-CITGO Refining, Total Petrochemicals U.S.A., Panhandle Eastern Corp., and ONEOK, Inc.

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Barry Pulliam

- Senior Economist with Econ One Research, Inc.
- Masters Degree in Economics from the Claremont Graduate School, with 17 years of experience consulting in the petroleum and natural gas industries
- Has consulted with or served as an economic expert for the State of Alaska on a number of occasions, including:
  - Several severance tax matters involving the valuation of crude oil
  - Operation of the TAPS Quality Bank in proceedings before the FERC and Alaska PUC
  - Merger and antitrust investigations
  - Recent arbitration between State and ExxonMobil involving crude oil royalties
- Consulted with the States of California, New Mexico, Texas, and Louisiana on economic issues related to the petroleum industry
- Consulted with federal government agencies, including the Department of the Interior and the Federal Trade Commission
- Co-author of two recent studies prepared for the Alaska Department of Natural Resources related to natural gas markets and royalty valuation issues

Dr. Anthony Finizza

- Economist working in conjunction with Econ One Research, Inc.
- Ph.D. in Economics and Finance from the University of Chicago with over 30 years of experience working in the petroleum industry
- Chief Economist for ARCO from 1975 to 1998
- At ARCO, Dr. Finizza was in charge of petroleum price forecasting for the company's Long Range Planning Process and conducted scenario-planning exercises with senior management responsible for investment decisions
- Consulted with the California Energy Commission, the State of Hawaii, and the International Hydrogen Infrastructure Group (a consortium of private companies and the U.S. Department of Energy) on energy-related matters
- Currently teaches forecasting and modeling at the University of California, Irvine
- Published articles in *Business Economics*, *The Journal of Corporate Renewal*, and *The International Journal of Forecasting*
- Senior Fellow with the U.S. Association for Energy Economics
- Former President of the International Association for Energy Economics

Oil Price Issues

Conclusions/Observations Regarding Oil Price Forecasts

- Producers are using $40 as a planning base case with $30 as a stress price case. Majors may be using a slightly lower price range than independents, but are moving their views up.
  - This range may actually be lower than their best estimate, but is consistent with their "prudent" planning approach
  - This range is consistent with recent observed oil asset purchases
- This range is consistent with publicly available forecasts although the recent EIA AEO 2006 is above this range. (~$54)
- What really matters is what forecasts are the 'risk takers" using?
- Forecasters have been humbled (and will continue to be humbled) by their forecasts

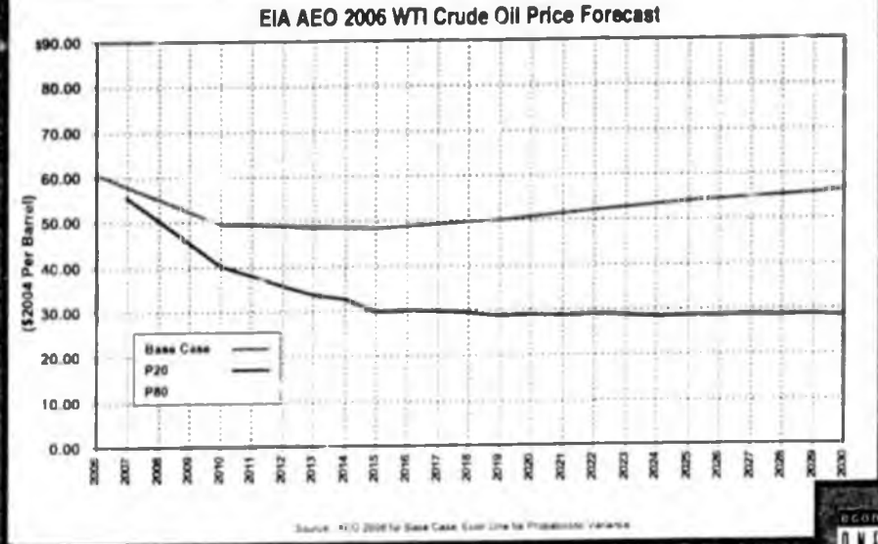
Oil Price Outlook

- Factors Suggesting Continued Higher Prices (short-term)
  - Strong oil demand, especially in China and rest of Asia
  - Growing Gap Between Global Demand and Global Non-OPEC Supply
    - Non-OPEC oil supply cannot keep up with growing world demand permitting increase in OPEC's market power
- Factors Opposing Higher Oil Prices (long-term)
  - Conventional oil faces threat from alternative sources of liquids when prices are high
    - Tar Sands: economic at ~$20-30 oil
    - Coal Liquids: economic above $30/bbl
    - Shale Oil: economic above $45-50/bbl
  - Penetration of Alternative Transportation Vehicles
    - Oil's key position in the transportation market will be eroded by Hybrid vehicles, Grid-Connected Hybrid vehicles, Fuel Cell Vehicles
  - A $10/bbl difference in oil prices is an $73B additional consumer costs per year

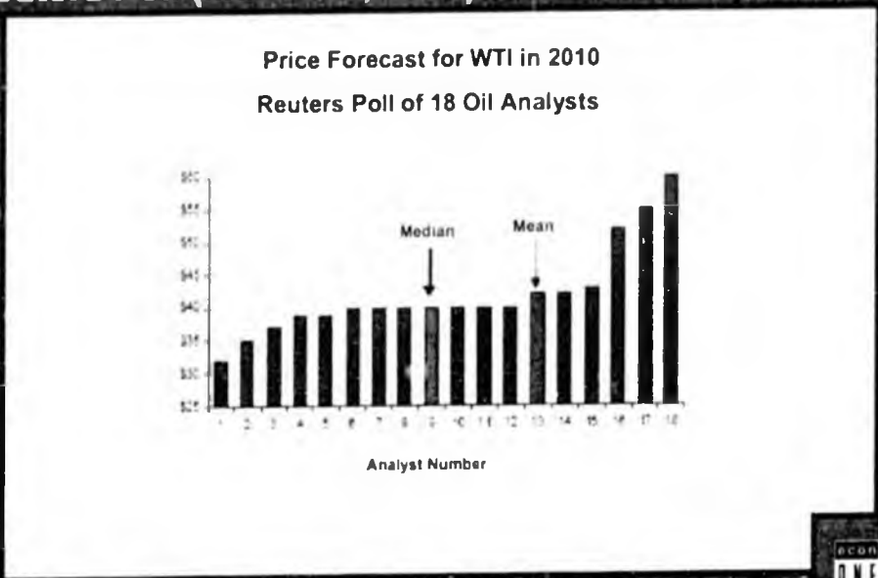
Oil Price Forecasts

- EIA's Annual Energy Outlook (AEO) - January 2006
  - Forecast of oil prices (through 2030, converted to WTI by Econ One)
  - Include Alternative scenarios, probabilistic forecasts developed by Econ One
- International Energy Agency (Paris) – 2005
- Reuters Poll of 18 Oil Analysts for WTI in 2010 (March 2006)
- NYMEX Futures market
  - WTI oil contract traded since early 1980s

Oil Price Outlook – EIA Annual Energy Outlook 2006

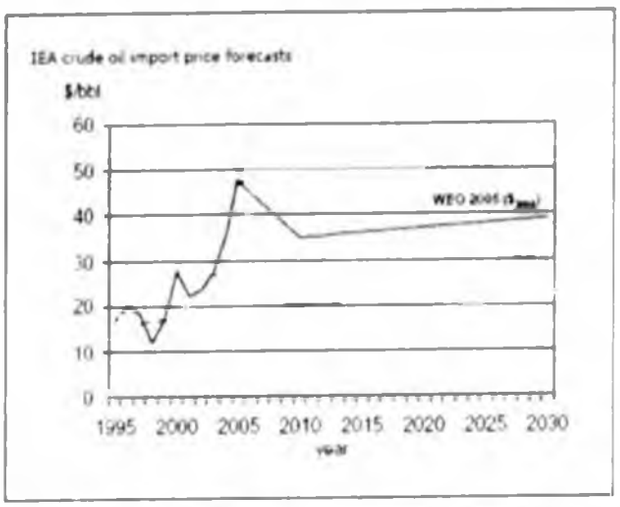


Alternative Oil Price Forecasts – Reuters Poll (March 10, 2006)

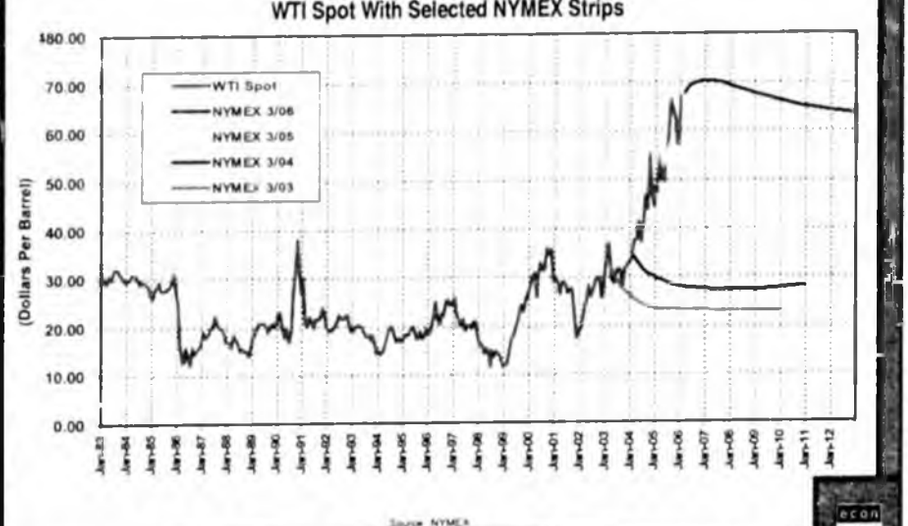


Source: Commodities Weekly, Deutsche Bank, 10 March 2006

IEA (2005) Oil Price Forecasts



WTI Prices: History and Market Forecast



Producer View of Future Oil Prices

- Producers have been "burned" by forecasts of high oil prices in the past
- Producers will test their projects against a price path that is below their "Most Likely" view
  - They use the "official price view" as a speed limit to signal caution
  - By "high-grading," the will have a suite of projects resilient to price risk
  - Their price view lags the current market price by as much as 5-7 years as prices rise, and by 2 years as prices fall.
  - Current view might be: $35-40/barrel
  - Producers will also "stress" test their projects at $30/barrel
- The consequences of error are not symmetrical
  - If a producer underestimates the future path of prices, they will not undertake high risk projects and their returns will skyrocket (the current situation relative to a few years ago)
  - If a producer overestimates the future path of prices, they will be scorned by Wall Street and investors (their position in the late 1990s)
  - They will "miss" opportunities, but these misses will not be fully "penalized" by the market

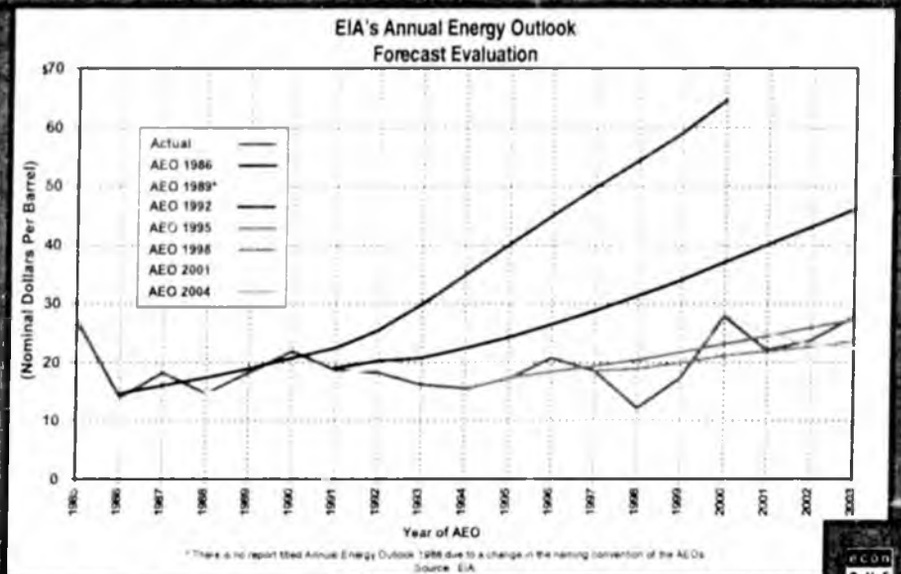
Imputed Oil Company Price Views

- Marubeni acquisition (2/23/06) of Pioneer GOM assets: ~ $40
- Norsk Hydro acquisition (9/19/05) of Spinnaker Exploration: ~$35
- Statoil acquisition (4/28/05) of EnCana's Deepwater GOM: ~ $30

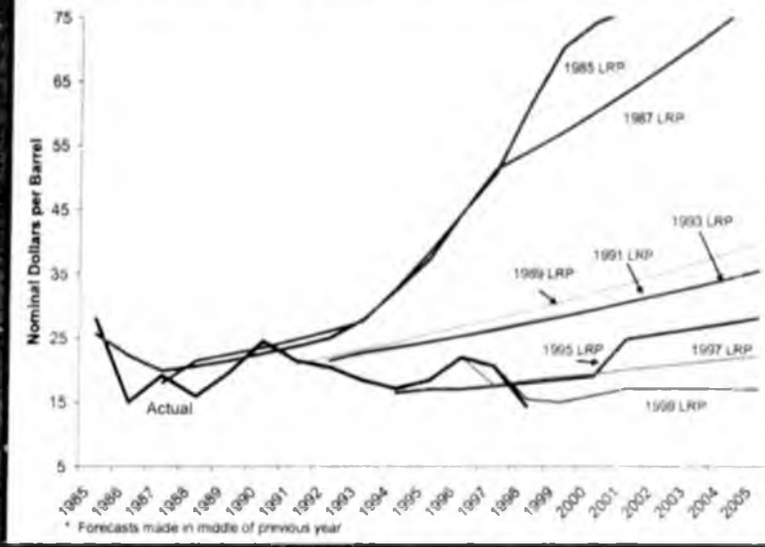
Some Examples of Humbling Oil Price Forecasting

- Energy Administration Administration (US DOE)
- A Private Oil Company
- Polls of "experts" – Society of Petroleum Evaluation Engineers

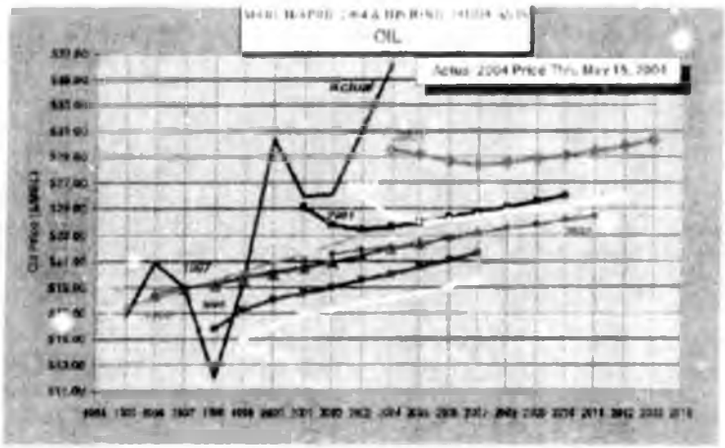
EIA's Annual Price Outlooks



Outlooks From An Oil Company

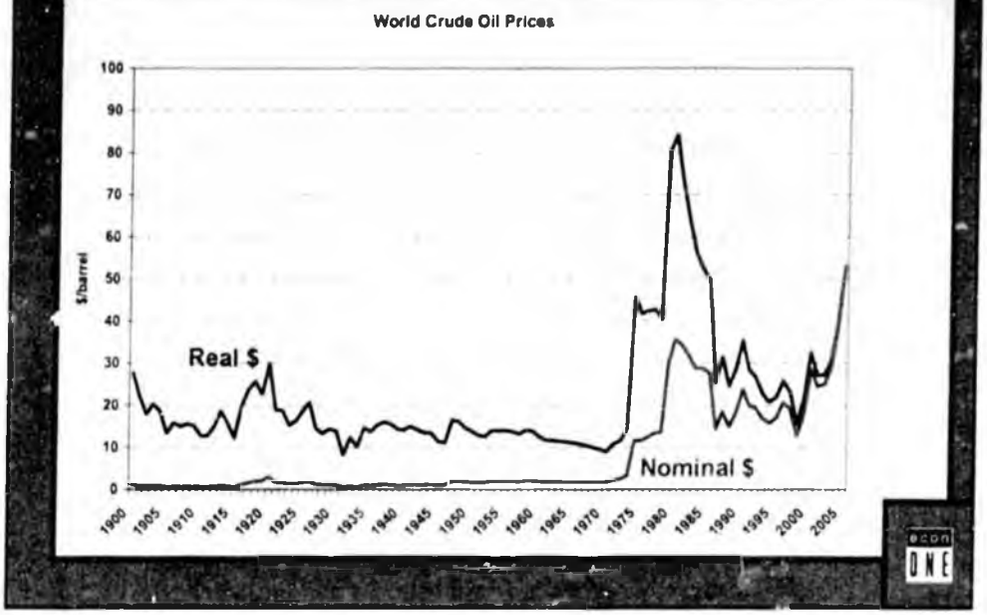


SPEE Annual Delphi Poll



Source: Society of Petroleum Evaluation Engineers (SPEE)

Historical Crude Oil Prices



Investment Decision-Making by Oil and Gas Companies

Financial Criteria
Net Present Value (NPV)

- Present value of future cash flows including capital investment
- A project with a positive NPV is a candidate for acceptance

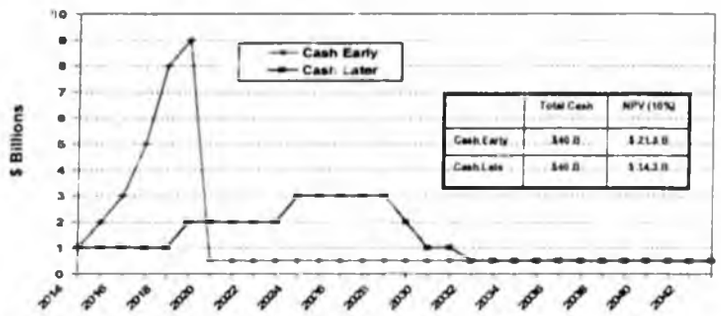
Financial Criteria
Internal Rate of Return (IRR)

- The discount rate at which the NPV of a project equals zero.
- All projects with an IRR greater than the risk-adjusted cost of capital should be accepted when there are no capital budget restraints. Choose higher IRR projects when there are capital budget restraints. Although the "market" would fund projects with IRR above cost of capital, project can be postponed.
- IRR of 12-15% currently indicates threshold rate of return without significant risk factors.

Financial Criteria
Cash (Undiscounted)

- Not used as key investment metric
- Often used to view size of project in presentations to sovereign governments
- Antithetical to discounted cash flow analysis
  - Suffers from failure to reward cash early
  - E.g. Cash flows below are equivalent, but not in discounted terms

Undiscounted Project Cash Flows



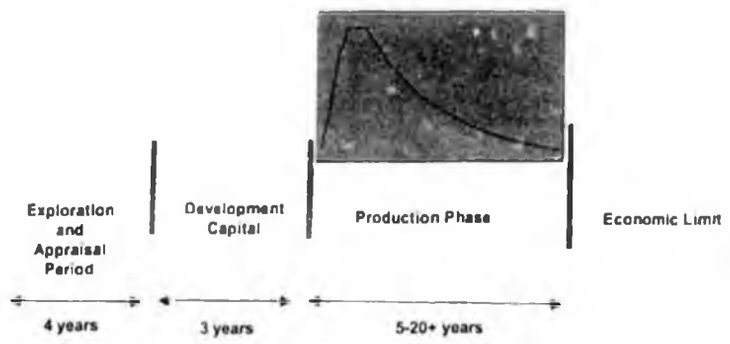
Economics of New Fields

Prudhoe Bay Discovery Well - 1967

Conclusions/Observations Regarding Exploration Impacts

- Without ANWR opening, expectation of large oil discoveries are unlikely, due to the Field Size Distribution of remaining economic reserves
- At low prices, 25/20 helps explorer more than 20/20
- Incentives are required at low prices (say, $73 M, although alternative approaches could work as well)
- At low prices, 20/20 and 25/20 preferred over SQ, in order to incent exploration
- Under either a 20/20 or 25/20 program, remaining reserves are economic, except for low prices (<$30?)

Stylized Lifecycle of New Field



Comparison of Reserves – Central North Slope vs. ANWR

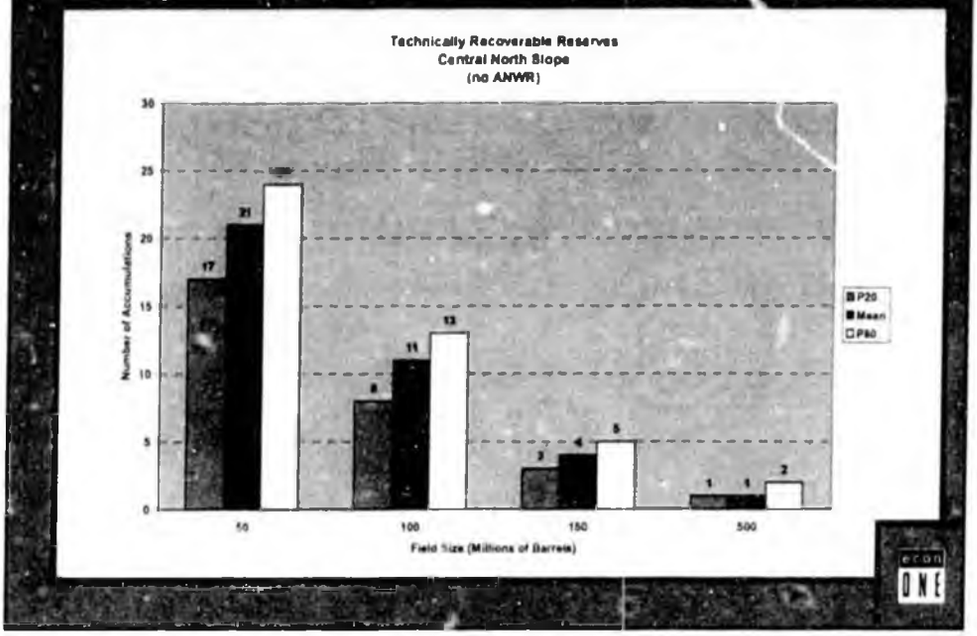
Undiscovered Technically Recoverable Oil Reserves

	Central North Slope	ANWR
Mean Estimate of Reserves (Billions of barrels)	4.0	10.4
Amount in Fields Over 1 B Barrels	0%	22%
Amount in Fields Over 500 M Barrels	2%	43%
Amount in Fields Smaller than 64 M Barrels	51%	1%

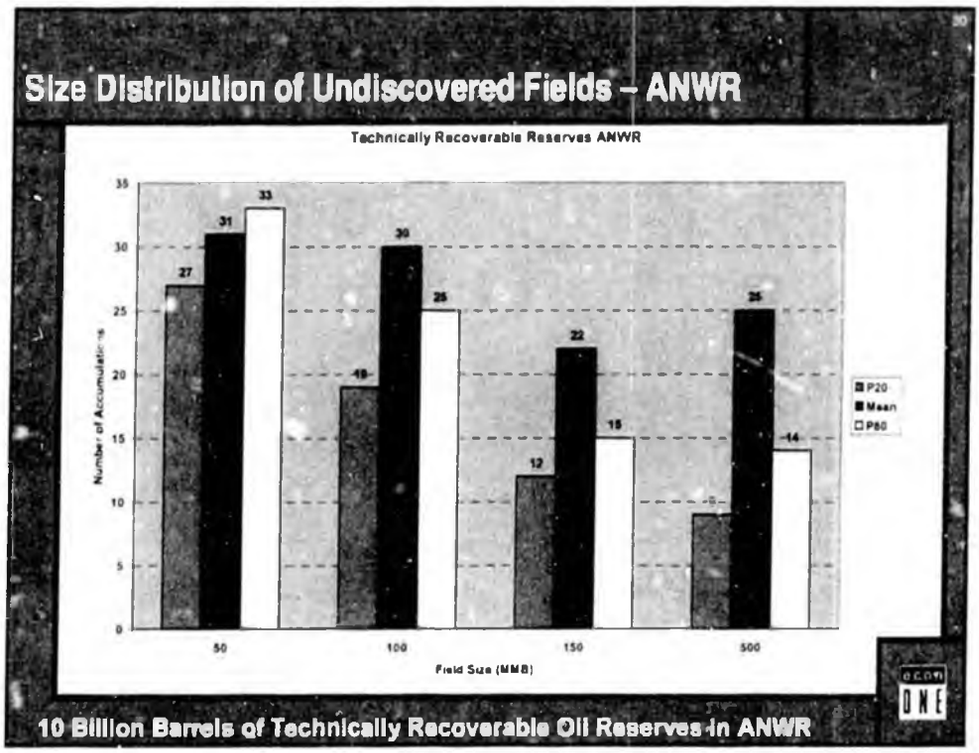
Note: Not all these reserves are economic

Source: USGS

Size Distribution of Undiscovered Fields in Central North Slope

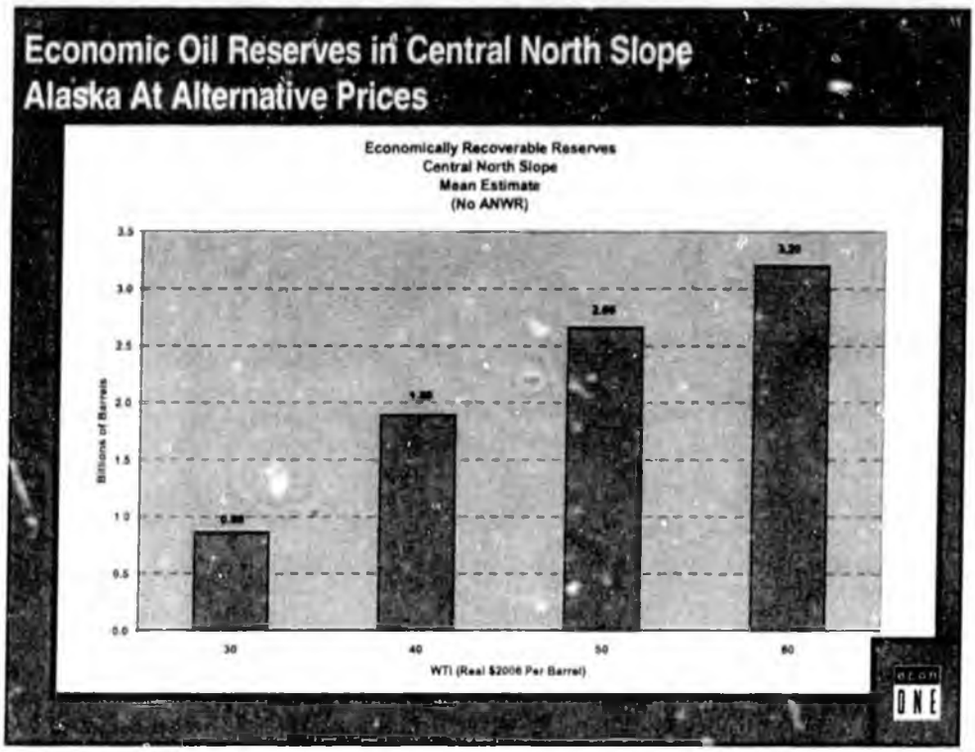


Size Distribution of Undiscovered Fields – ANWR

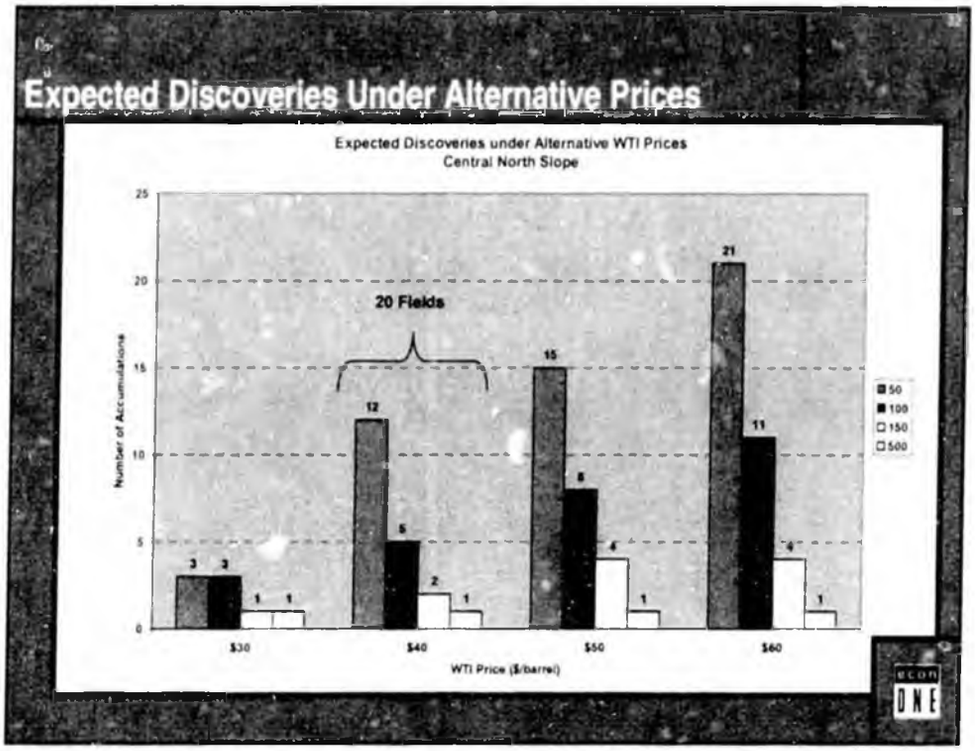


10 Billion Barrels of Technically Recoverable Oil Reserves in ANWR

Economic Oil Reserves in Central North Slope Alaska At Alternative Prices



Expected Discoveries Under Alternative Prices

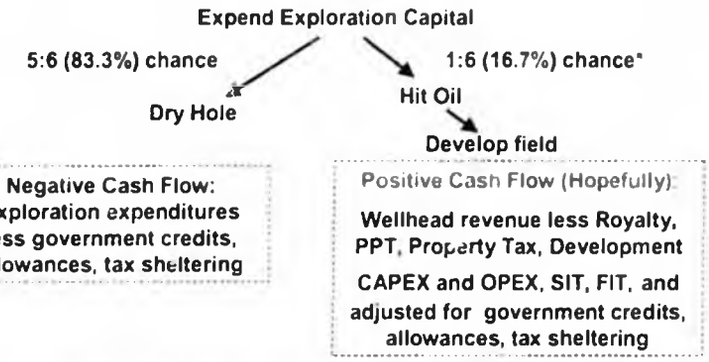


Likely Distribution of New Field Discoveries

Size of Field	Percent
50 MMB	60%
100 MMB	25%
150 MMB	10%
500 MMB	5%

How An Explorer Will Look At The Exploration Proposition

- Calculate the Net Present Value of all outcomes, weighted by the expectation of the outcome
- EMV= NPV (a successful development project) x (Chance of hitting oil) less NPV (cash flow from undertaking exploration)



*The experience in Alaska from 1994-2003 is 17.9% according to Wood Mac GOGRR 2004

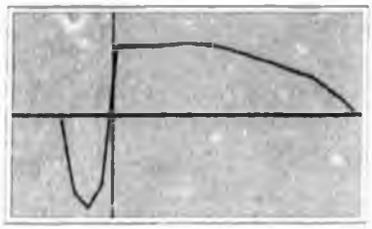
Schematic of Cash Flows For This Example

Cash Flow From Exploration

100% of Time

Cash Flow From Development and Production

16.7% of Time



Avoiding Gambler's Ruin

- Say the chance of drilling a successful well is 1-in-6, or .167
- An explorer will want to mitigate the risk of failure by drilling more wells. (Possibly shared.)
- The chance of failure with one well is .833 (=1-.167). The chance of failure with a 6 well program is .334 (=.833^6)
- An explorer can drill six wells with an expected number of successful wells = 1.0

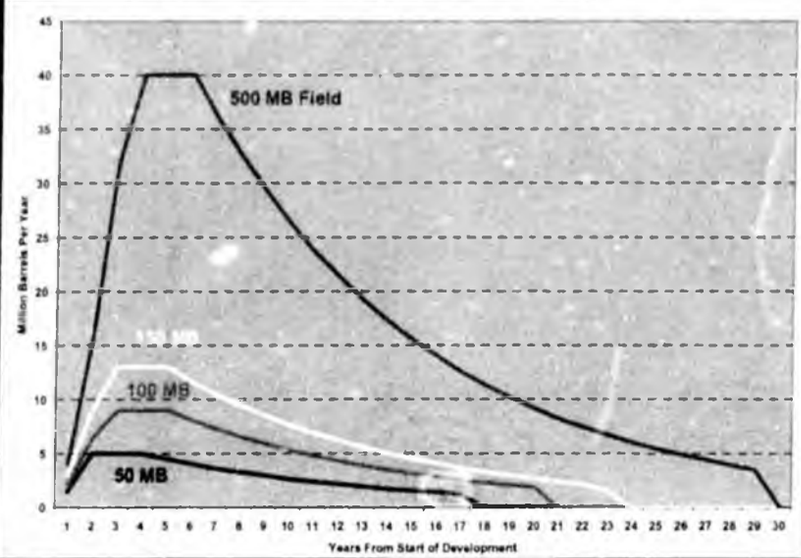
No. of Successes	Chance	Expected Value
0	.3341	0
1	.4019	.4019
2	.2015	.4030
3	.0538	.1614
4	.0081	.0324
5	.0007	.0033
6	.0001	.0078
	Total	1.000

Illustration of A Failed Exploration Program – 1 Well

A One Well Dry Hole Program at $20 Million

	20/20	25/20	SQ
Year			
1	-2.4	-2.3	-3.1
2	-2.3	-2.2	-3.1
3	-2.3	-2.2	-3.2
4	-7.8	-7.4	-10.3
Total Producer Cash Flow	-14.8	-14.2	-19.8
Producer NCF NPV10	-11.1	-10.7	-14.9

Oil Production Profiles



Economics of an 6-Well Exploration Program
50 MM Field (High Cost, Low Productivity)

Without $73 M Allowance

	Explorer NCF NPV10		
Price (Real $2006)	20/20	25/20	SQ
$ 30	-37.0	-35.7	-79.2
$ 40	44.9	41.1	23.1
$ 50	120.9	110.5	125.5
	State Revenues ($M) NPV10		
$ 30	0.0	-2.1	69.0
$ 40	64.8	71.1	100.4
$ 50	139.2	156.2	131.8

Economics of an 6-Well Exploration Program
50 MM Field (High Cost, Low Productivity)

With $73 M Allowance

	Explorer NCF NPV10		
Price (Real $2006)	20/20	25/20	SQ
$ 30	-13.2	-6.0	-79.2
$ 40	78.3	82.8	23.1
$ 50	158.8	157.9	125.5
	State Revenues ($M) NPV10		
$ 30	-38.8	-50.6	69.0
$ 40	10.3	2.9	100.4
$ 50	77.3	78.8	131.8

Economics of an 6-Well Exploration Program

Without $73 M Allowance

	Explorer NCF NPV10		
Price (Real $2006)	20/20	25/20	SQ
$ 30			-34.9
$ 40			148.3
$ 50			331.6
	Explorer IRR		
$ 30			9.9
$ 40			14.9
$ 50			21.1
	State Revenues ($M) NPV10		
$ 30			139.2
$ 40			200.6
$ 50			261.9

Economics of an 6-Well Exploration Program

Without $73 M Allowance

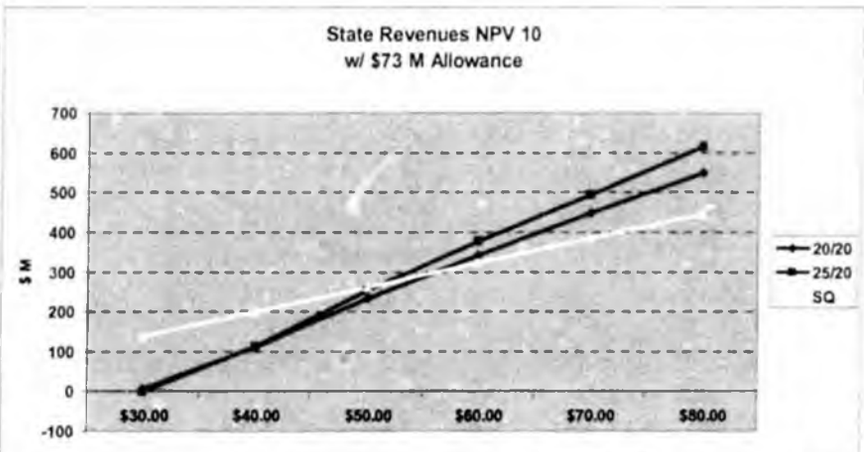
	Explorer NCF NPV10		
Price (Real $2006)	20/20	25/20	SQ
$ 30	5.1	3.3	-34.9
$ 40	149.7	138.9	148.3
$ 50	284.1	261.7	331.6
	Explorer IRR		
$ 30	10.3	10.2	9.9
$ 40	17.1	16.9	14.9
$ 50	22.8	22.5	21.1
	State Revenues ($M) NPV10		
$ 30	51.2	54.1	139.2
$ 40	165.7	183.4	200.6
$ 50	296.9	337.5	261.9

Economics of an 6-Well Exploration Program

With $73 M Allowance

	Explorer NCF NPV10		
Price (Real $2006)	20/20	25/20	SQ
$ 30	32.6	37.7	-34.9
$ 40	184.5	182.4	148.3
$ 50	323.5	311.0	331.6
	Explorer IRR		
$ 30	11.7	12.0	9.9
$ 40	18.5	18.7	14.9
$ 50	23.9	24.0	21.1
	State Revenues ($M) NPV10		
$ 30	6.2	-2.2	139.2
$ 40	108.9	112.3	200.6
$ 50	232.6	253.0	261.9

State Revenues (NPV10) From Example Exploration Program



Conclusions/Observations Regarding Exploration Impacts

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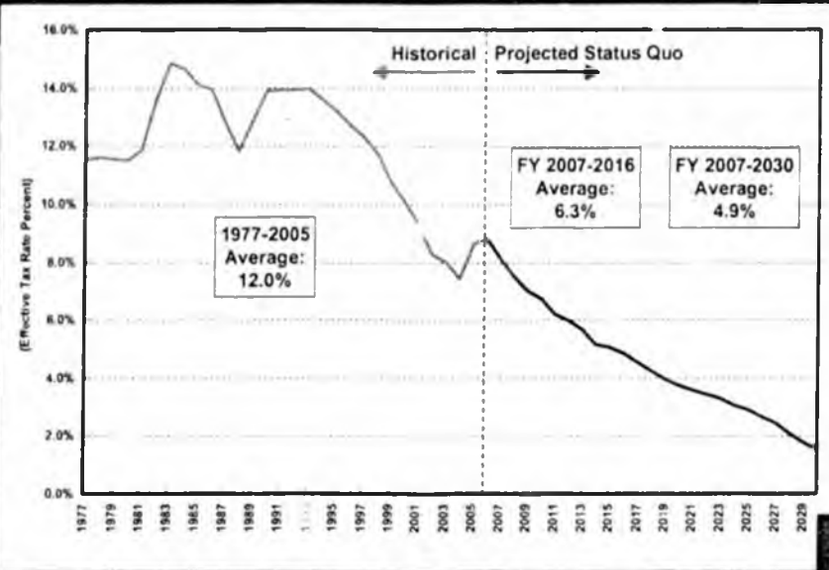
Effective Severance Tax Rates Over Time



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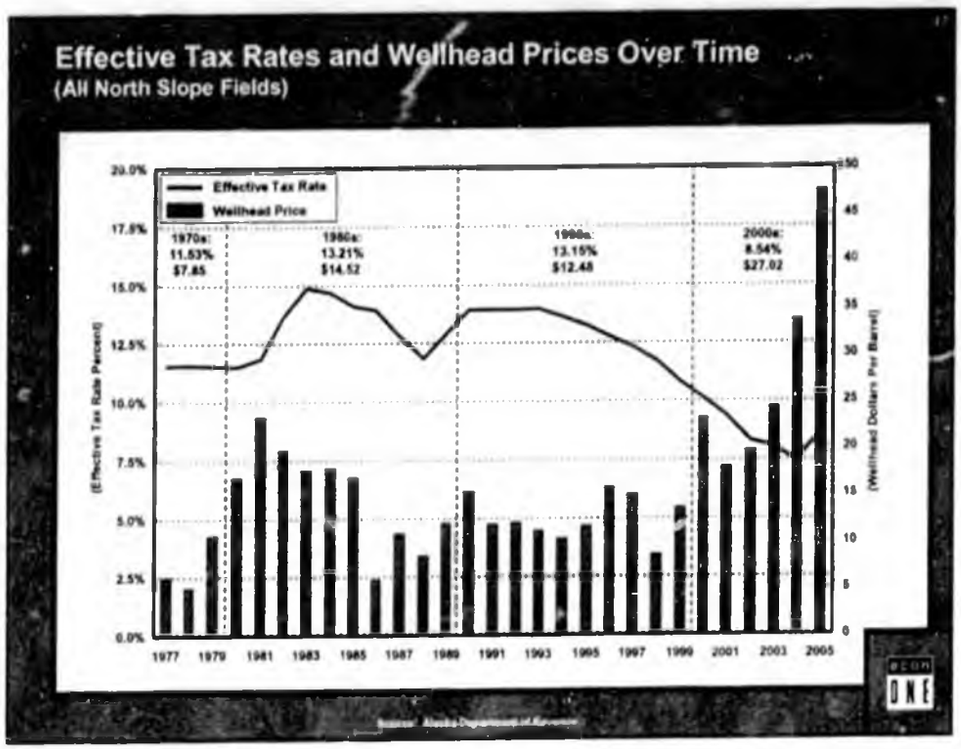
Effective Tax Rates and Wellhead Prices Over Time
(All North Slope Fields)
Effective Tax Rate
Wellhead Price
1970s:
11.53%
$7.85
1980s:
13.21%
$14.52
1990s:
13.15%
$12.48
2000s:
8.54%
$27.02
(Effective Tax Rate Percent)
(Wellhead Dollars Per Barrel)
20.0%
17.5%
15.0%
12.5%
10.0%
7.5%
5.0%
2.5%
0.0%
50
45
40
35
30
25
20
15
10
5
0
1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005
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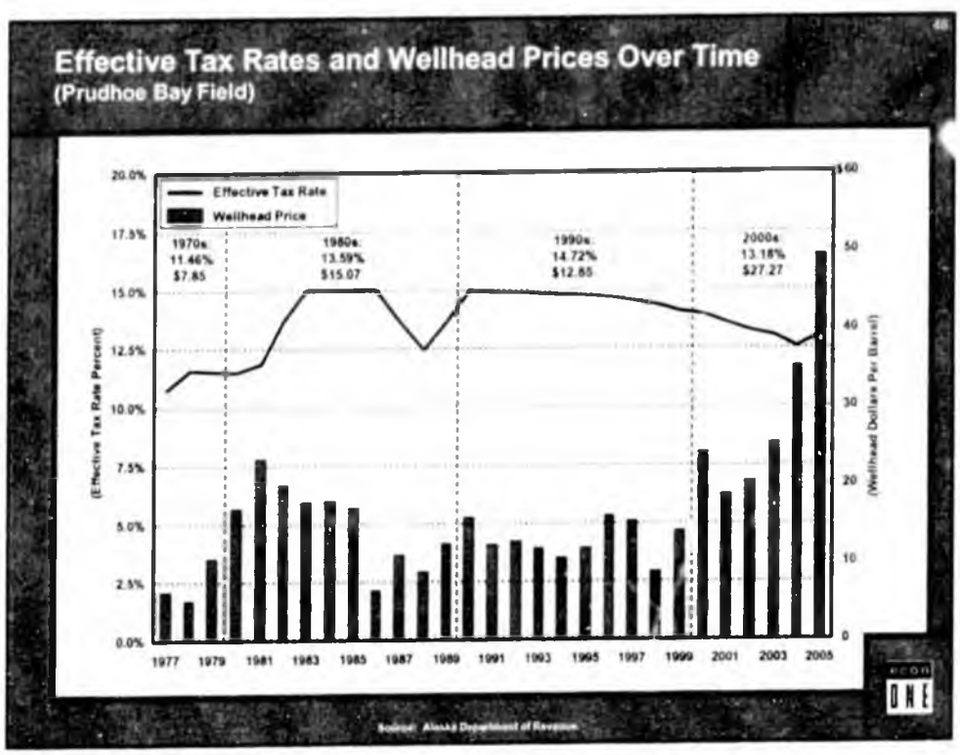
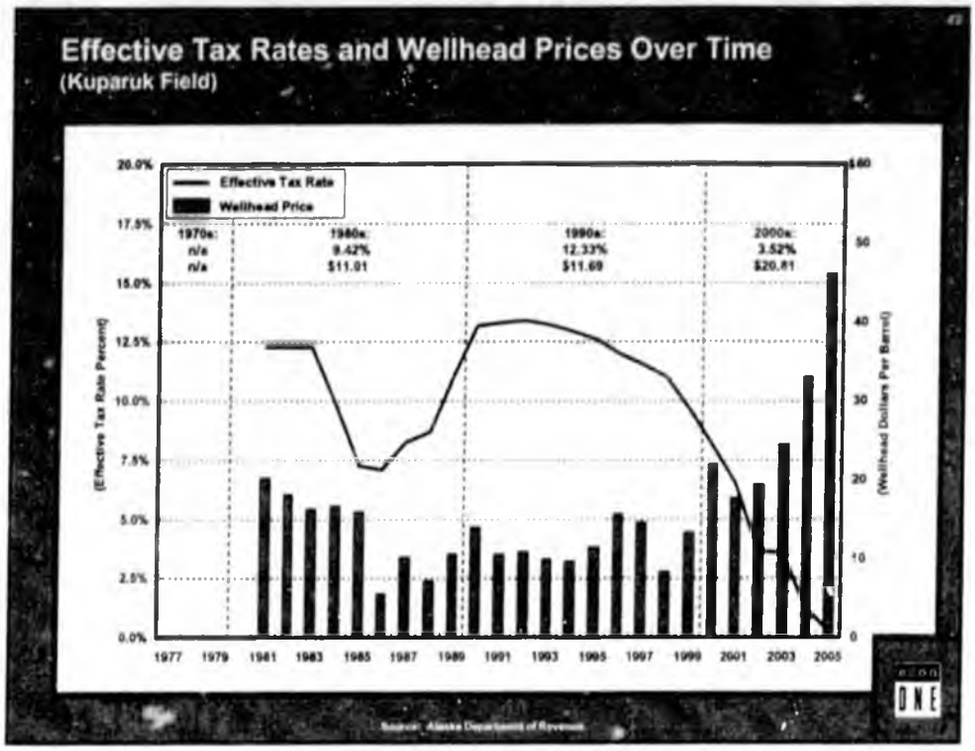
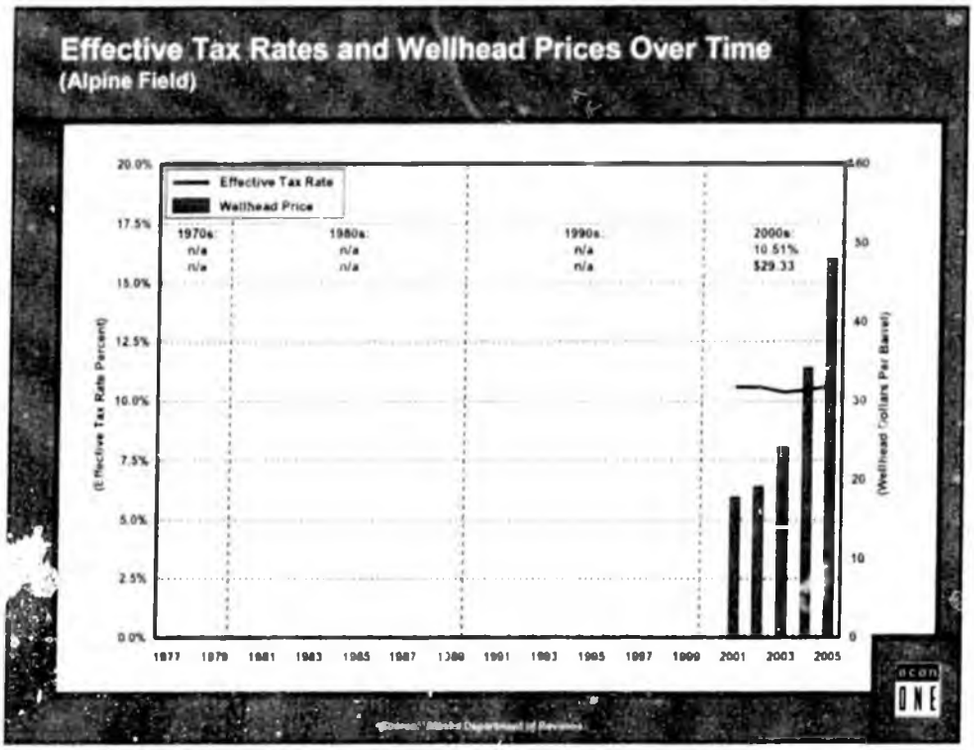

Effective Tax Rates and Wellhead Prices Over Time
(Prudhoe Bay Field)
Effective Tax Rate
Wellhead Price
1970s
11.46%
$7.85
1980s
13.59%
$15.07
1990s
14.72%
$12.85
2000s
13.18%
$27.27
(Effective Tax Rate Percent)
(Wellhead Dollars Per Barrel)
20.0%
17.5%
15.0%
12.5%
10.0%
7.5%
5.0%
2.5%
0.0%
60
50
40
30
20
10
0
1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005
ECON ONE

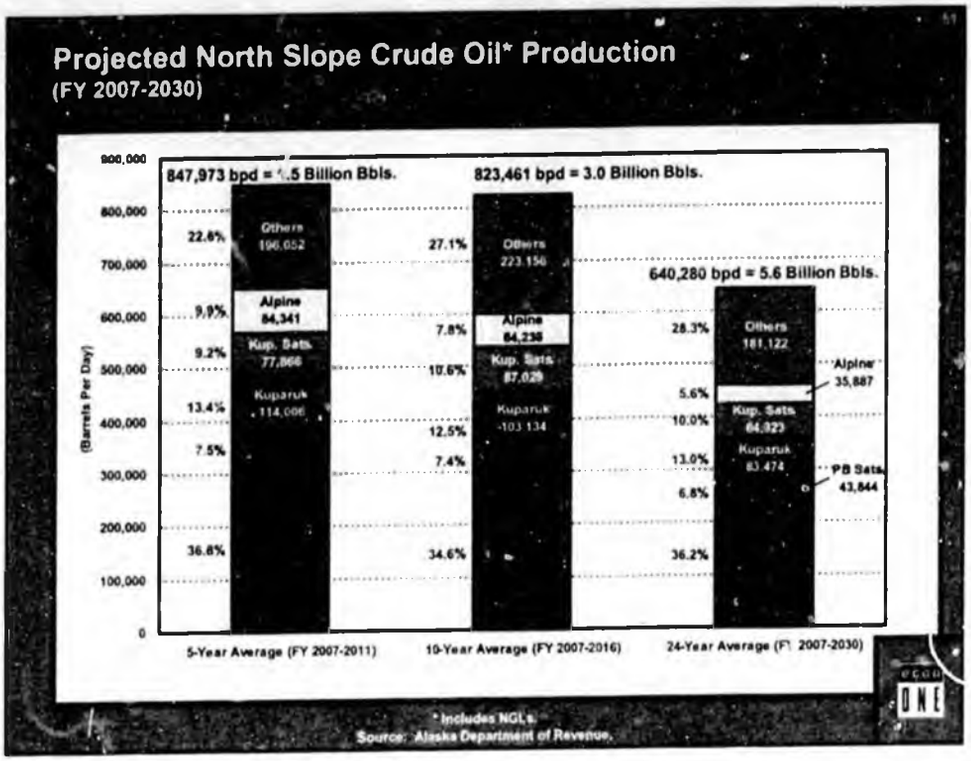
Effective Tax Rates and Wellhead Prices Over Time
(Kuparuk Field)



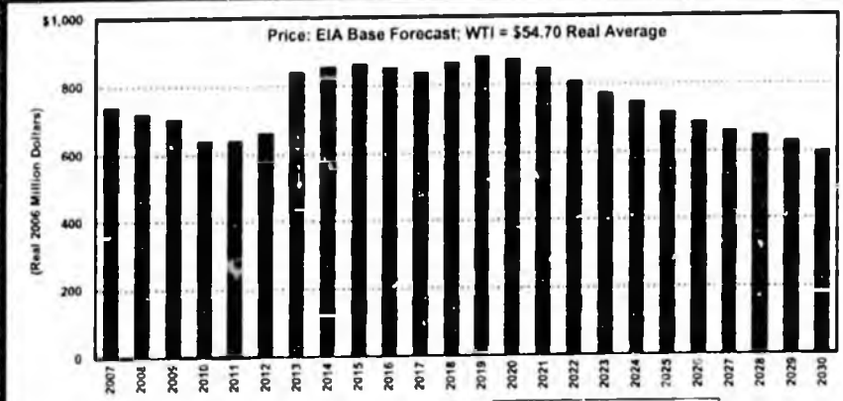
Effective Tax Rates and Wellhead Prices Over Time
(Alpine Field)



Projected North Slope Crude Oil* Production
(FY 2007-2030)



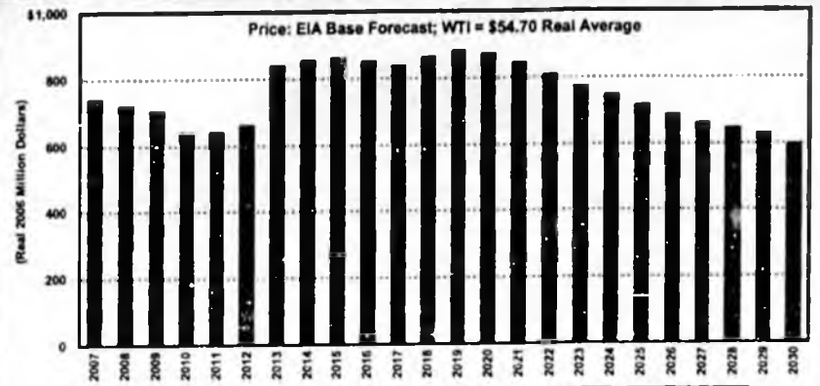
Change in Projected Taxes Under a 20/20 Tax
DOR Forecast Production (FY 2007-2030)*



	FY 2007-2016	FY 2007-2030
Total PPT Tax ($Million)	$15,272	$29,255
Total Difference from SQ ($Million)	$7,471	$17,971
Annual Average Difference from SQ ($Million)	$747	$749
PPT Effective Tax Rate (Percent)	12.4%	12.6%
SQ Effective Tax Rate (Percent)	6.3%	4.9%

* Calculated from July 2006; includes 6-year transition and $73 Million exemption; volumes per DOR Fall 2006 Forecast with Ooguruk projection.

Change in Projected Taxes Under a 20/20 Tax
DOR Forecast Production (FY 2007-2030)*



	FY 2007-2016	FY 2007-2030	1H 2006
Total PPT Tax ($Million)	$15,272	$29,255	$1,127
Total Difference from SQ ($Million)	$7,471	$17,971	$476
Annual Average Difference from SQ ($Million)	$747	$749	n/a
PPT Effective Tax Rate (Percent)	12.4%	12.6%	15.2%
SQ Effective Tax Rate (Percent)	6.3%	4.9%	8.8%

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* Calculated from July 2006; includes 5-year transition and $73 Million exemption; volumes per DOR Fall 2006 Forecast with Ongorak projection.

Change in Projected Taxes Under a 20/20 Tax
DOR Forecast Production (FY 2007-2030)*

	Eia WTI Price Forecast			Fixed $40 Price	FY 2007-2016 Base-over	FY 2007-2030 Base-over
	Base	Low	High			
Average WTI Price in Real 2006 Dollars	$54.70	$38.40	$72.00	$40.00	$30.00	$29.00
FY 2007-2016						
Total PPT Tax (Million 2006$)	$15,272	$8,786	$21,158	$8,666	$3,925	
Total Difference from Status Quo (Million 2006$)	$7,471	$3,614	$11,868	$2,434	$0	
Annual Average Difference from Status Quo (Million 2006$)	$747	$361	$1,186	$243	$0	
PPT Effective Tax Rate (Percent)	12.4%	10.3%	13.8%	10.2%	7.1%	
Status Quo Effective Tax Rate (Percent)	6.3%	6.5%	6.2%	6.3%	6.3%	
FY 2007-2030						
Total PPT Tax (Million 2006$)	$29,255	$12,785	$44,736	$18,230		$5,293
Total Difference from Status Quo (Million 2006$)	$17,971	$4,824	$30,262	$8,317		$0
Annual Average Difference from Status Quo (Million 2006$)	$749	$201	$1,261	$347		$0
PPT Effective Tax Rate (Percent)	12.6%	8.7%	14.5%	10.0%		5.0%
Status Quo Effective Tax Rate (Percent)	4.9%	5.4%	4.7%	4.9%		5.0%

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* Calculated from July 2006; includes 5-year transition and $73 Million exemption; volumes per DOR Fall 2006 Forecast with Ongorak projection.

Change in Projected Taxes Under a 20/20 Tax with Costs Increased by 20% DOR Forecast Production (FY 2007-2030)*

	EIA WTI Price Forecast Base	Low	High	Fixed $40 Price	FY2007-2016 Breakeven	FY2007-2030 Breakeven
Average WTI Price in Real 2006 Dollars	$54.70	$35.40	$72.00	$40.00	$34.60	$32.50
FY 2007-2016						
Total PPT Tax (Million 2006$)	$13,003	$6,320	$18,680	$7,410	$4,578	-
Total Difference from Status Quo (Million 2006$)	$4,002	$2,146	$10,218	$1,986	$0	-
Annual Average Difference from Status Quo (Million 2006$)	$400	$214	$1,022	$197	$0	-
PPT Effective Tax Rate (Percent)	11.2%	8.0%	12.9%	8.5%	6.3%	-
Status Quo Effective Tax Rate (Percent)	6.3%	6.5%	6.2%	6.3%	6.3%	
FY 2007-2030						
Total PPT Tax (Million 2006$)	$26,[illegible]	$10,670	$41,[illegible]	$13,480		$6,198
Total Difference from Status Quo (Million 2006$)	$15,221	$2,128	$27,511	$6,566		$0
Annual Average Difference from Status Quo (Million 2006$)	$634	$89	$1,146	$232		$0
PPT Effective Tax Rate (Percent)	11.9%	6.8%	13.0%	6.3%		4.9%
Status Quo Effective Tax Rate (Percent)	4.9%	5.4%	4.7%	4.9%		4.9%

*[illegible]

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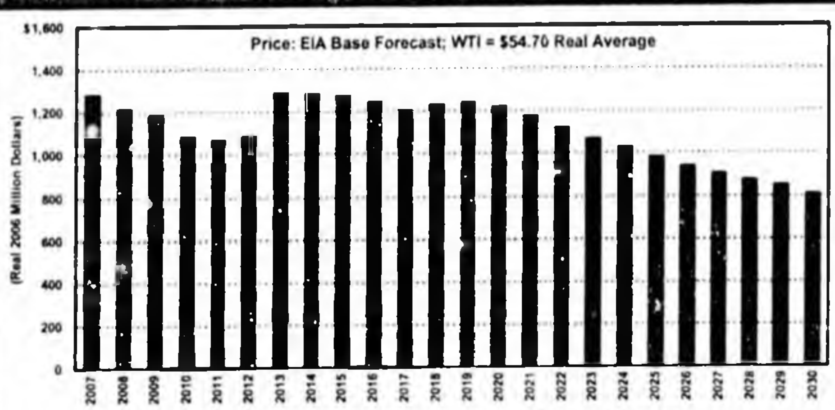
Change in Projected Taxes Under a 25/20 Tax DOR Forecast Production (FY 2007-2030)*



	FY 2007-2016	FY 2007-2030
Total PPT Tax ($Million)	$19,769	$37,840
Total Difference from SQ ($Million)	$11,968	$26,555
Annual Average Difference from SQ ($Million)	$1,197	$1,106
PPT Effective Tax Rate (Percent)	16.0%	16.4%
SQ Effective Tax Rate (Percent)	6.3%	4.9%

*[illegible]

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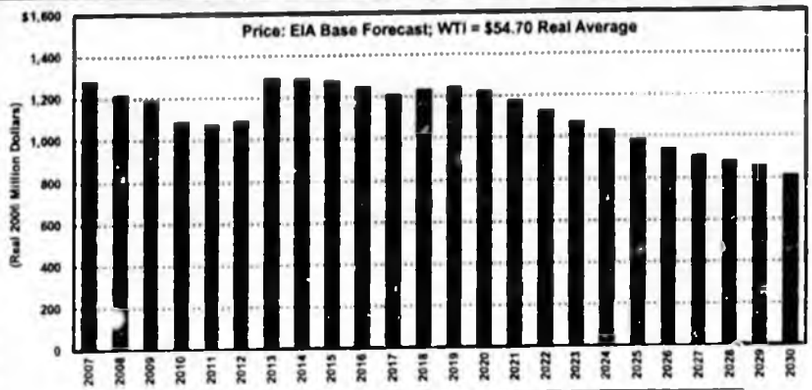
Change in Projected Taxes Under a 25/20 Tax
DOR Forecast Production (FY 2007-2030)*



	FY 2007-2016	FY 2007-2030	1H 2006
Total PPT Tax ($Million)	$19,769	$37,840	$1,432
Total Difference from SQ ($Million)	$11,968	$26,555	$782
Annual Average Difference from SQ ($Million)	$1,197	$1,106	n/a
PPT Effective Tax Rate (Percent)	16.0%	16.4%	19.4%
SQ Effective Tax Rate (Percent)	6.3%	4.9%	8.8%

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* Calculated from July 2006, includes Point transition and $70 Million exemption, volumes per DOR Fall 2006 Forecast with Original projection

Change in Projected Taxes Under a 25/20 Tax
DOR Forecast Production (FY 2007-2030)*

	EIA WTI Price Forecast: Base	Low	High	Fixed $40 Price	FY 2007-2016 Breakeven	FY 2007-2030 Breakeven
Average WTI Price in Real 2006 Dollars	$54.70	$35.40	$72.10	$40.00	$27.10	$26.10
FY 2007-2016						
Total PPT Tax ($Million)	$19,769	$12,915	$27,126	$11,798	$1,382	
Total Difference from Status Quo ($Million)	$11,968	$6,740	$17,650	$4,335	$0	
Annual Average Difference from Status Quo ($Million)	$1,197	$674	$1,765	$433	$0	
PPT Effective Tax Rate (Percent)	16.0%	13.6%	17.7%	13.6%	6.3%	
Status Quo Effective Tax Rate (Percent)	6.3%	6.5%	6.2%	6.3%	6.3%	
FY 2007-2030						
Total PPT Tax ($Million)	$37,840	$17,226	$57,183	$21,568		$4,671
Total Difference from Status Quo ($Million)	$26,555	$6,268	$42,717	$13,845		$0
Annual Average Difference from Status Quo ($Million)	$1,106	$261	$1,780	$577		$0
PPT Effective Tax Rate (Percent)	16.4%	11.7%	18.5%	13.3%		5.0%
Status Quo Effective Tax Rate (Percent)	4.9%	5.4%	4.7%	4.9%		5.0%

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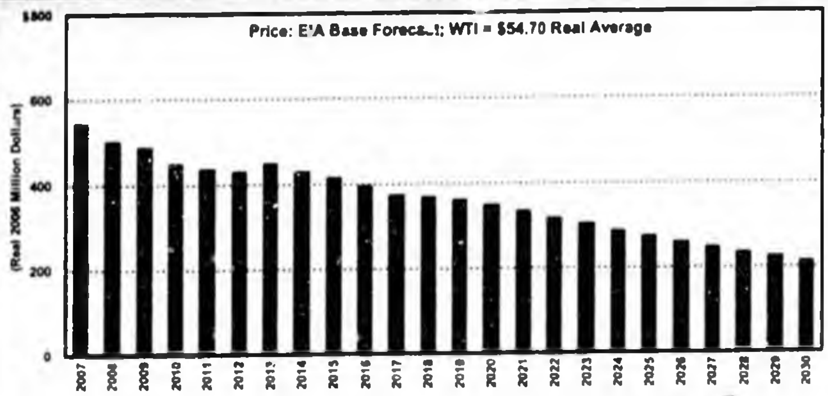
* Calculated from July 2006, includes Point transition and $70 Million exemption, volumes per DOR Fall 2006 Forecast with Original projection

Difference in Projected Taxes Between a 25/20 and a 20/20 Tax DOR Forecast Production (FY 2007-2030)*



	FY 2007-2016	FY 2007-2030
Total 25/20 PPT Tax ($Million)	$19,769	$37,840
Total Difference from 20/20 PPT Tax ($Million)	$4,497	$8,584
Annual Average Difference from 20/20 PPT Tax ($Million)	$450	$358
20/20 PPT Effective Tax Rate (Percent)	16.0%	16.4%
25/20 PPT Effective Tax Rate (Percent)	12.4%	12.6%

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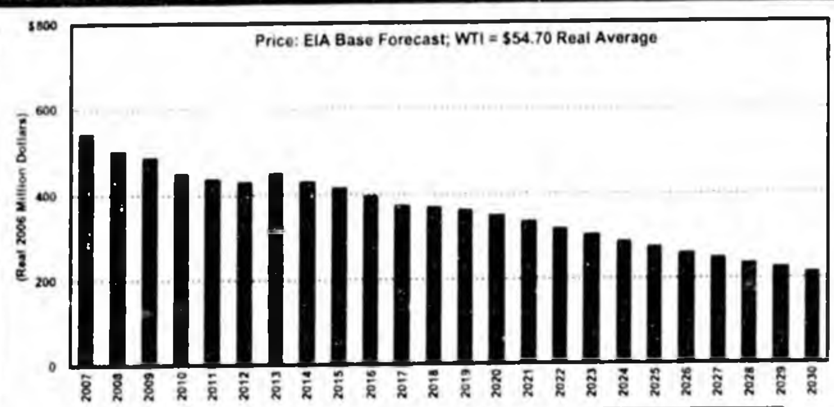
* Calculated from July 2006; includes 6-year transition and $73 Million exemption; volumes per DOR Fall 2005 Forecast with [illegible] projection

Difference in Projected Taxes Between a 25/20 and a 20/20 Tax DOR Forecast Production (FY 2007-2030)*



	FY 2007-2016	FY 2007-2030	1H 2006
Total 25/20 PPT Tax ($Million)	$19,769	$37,840	$1,432
Total Difference from 20/20 PPT Tax ($Million)	$4,497	$8,584	$305
Annual Average Difference from 20/20 PPT Tax ($Million)	$450	$358	n/a
20/20 PPT Effective Tax Rate (Percent)	16.0%	16.4%	19.4%
25/20 PPT Effective Tax Rate (Percent)	12.4%	12.6%	15.2%

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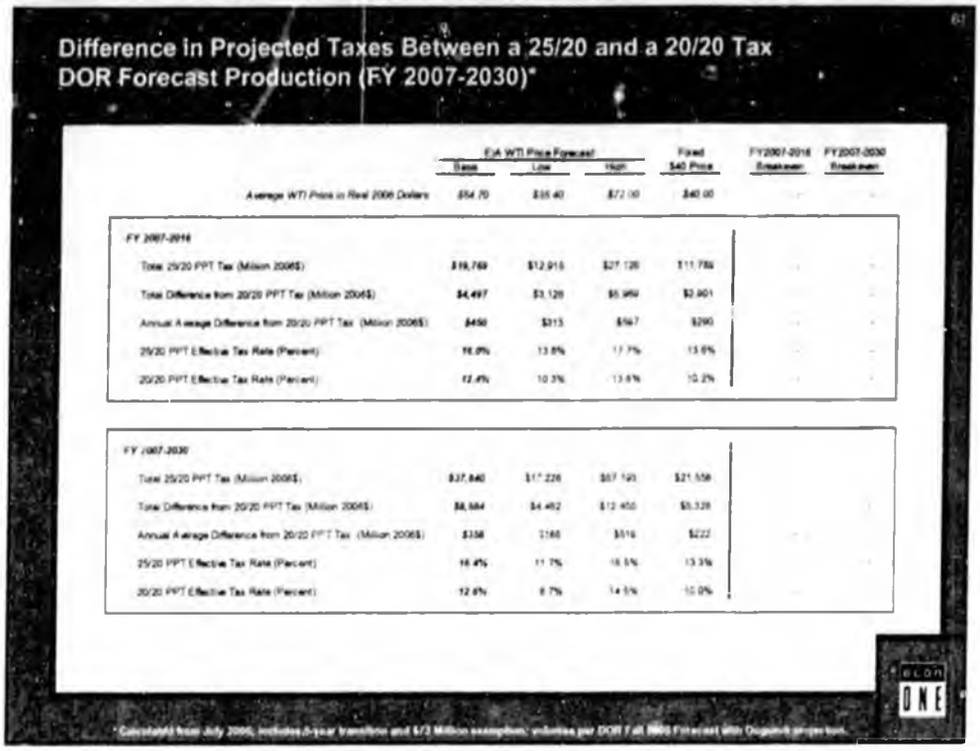
* Calculated from July 2006; includes 6-year transition and $73 Million exemption; volumes per DOR Fall 2005 Forecast with [illegible] projection


Difference in Projected Taxes Between a 25/20 and a 20/20 Tax
DOR Forecast Production (FY 2007-2030)*
E/A WTI Price Forecast
Base
Low
High
Fixed $40 Price
FY2007-2016 Breakeven
FY2007-2030 Breakeven
Average WTI Price in Real 2006 Dollars
$54.70
$35.40
$72.00
$40.00
FY 2007-2016
Total 25/20 PPT Tax (Million 2006$)
$19,769
$12,915
$27,128
$11,788
Total Difference from 20/20 PPT Tax (Million 2006$)
$4,497
$3,129
$6,969
$2,901
Annual Average Difference from 20/20 PPT Tax (Million 2006$)
$450
$313
$697
$290
25/20 PPT Effective Tax Rate (Percent)
16.0%
13.8%
17.7%
13.6%
20/20 PPT Effective Tax Rate (Percent)
12.4%
10.3%
13.6%
10.2%
FY 2007-2030
Total 25/20 PPT Tax (Million 2006$)
$37,840
$17,228
$67,193
$21,558
Total Difference from 20/20 PPT Tax (Million 2006$)
$8,584
$4,462
$12,450
$5,328
Annual Average Difference from 20/20 PPT Tax (Million 2006$)
$358
$186
$519
$222
25/20 PPT Effective Tax Rate (Percent)
16.4%
11.7%
18.5%
13.3%
20/20 PPT Effective Tax Rate (Percent)
12.6%
8.7%
14.5%
10.0%
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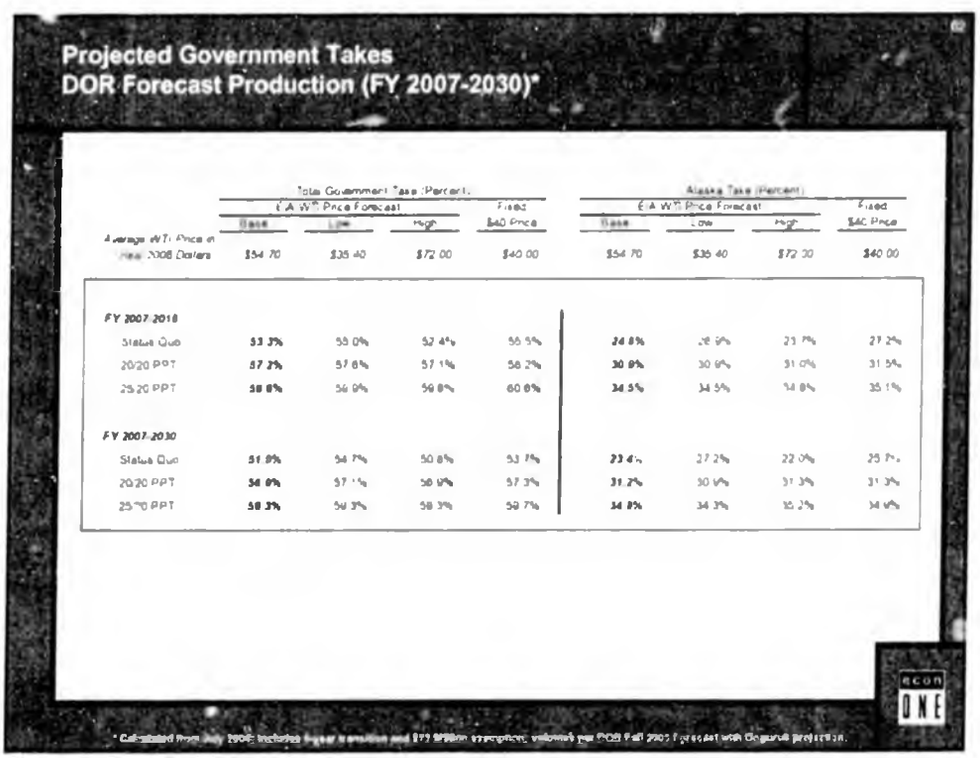
Projected Government Takes
DOR Forecast Production (FY 2007-2030)*
Total Government Take (Percent)
Alaska Take (Percent)
E/A WTI Price Forecast
Base
Low
High
Fixed $40 Price
Average WTI Price in Real 2006 Dollars
$54.70
$35.40
$72.00
$40.00
FY 2007-2016
Status Quo
53.3%
55.0%
52.4%
56.5%
24.8%
20/20 PPT
57.2%
57.6%
57.1%
58.2%
30.9%
30.9%
31.0%
31.5%
25/20 PPT
58.6%
56.9%
56.8%
60.6%
34.5%
34.5%
34.8%
35.1%
FY 2007-2030
Status Quo
51.9%
54.7%
50.8%
53.7%
23.4%
27.2%
22.0%
25.7%
20/20 PPT
56.0%
57.1%
56.0%
57.3%
31.2%
30.9%
31.3%
31.3%
25/20 PPT
58.3%
56.3%
58.3%
59.7%
34.8%
34.3%
35.2%
34.9%
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Projected Annual Average Taxes at Various Tax Rates and Prices DOR Forecast Production (FY 2007-2030)*

WTI Price	20/20	21/20	22/20	23/20	24/20	25/20	Change Per % Increase in Tax Rate	Change Per % Increase in Credit Rate
				(Million 2006 Dollars)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
FY 2007-2016								
$40	$868.6	$946.8	$1,004.8	$1,062.8	$1,120.9	$1,178.9	$58.0	($13.6)
$45	$1,149.5	$1,225.1	$1,291.6	$1,362.7	$1,433.7	$1,504.8	$71.1	($13.6)
$50	$1,410.2	$1,494.7	$1,578.4	$1,662.5	$1,746.6	$1,830.7	$84.1	($13.6)
$55	$1,671.0	$1,768.1	$1,865.2	$1,962.4	$2,059.5	$2,156.6	$97.1	($13.6)
$60	$1,931.7	$2,041.9	$2,152.1	$2,262.2	$2,372.4	$2,482.6	$110.2	($13.6)
Change Per Dollar Increase in WTI Price	$52.1	$54.8	$57.4	$60.0	$62.6	$65.2		
FY 2007-2030								
$40	$676.3	$720.7	$765.1	$809.5	$853.9	$898.3	$44.4	($10.6)
$45	$879.9	$937.5	$988.0	$1,042.5	$1,097.1	$1,151.6	$54.5	($10.6)
$50	$1,081.6	$1,146.3	$1,211.0	$1,275.6	$1,340.3	$1,405.0	$64.7	($10.6)
$55	$1,284.3	$1,359.1	$1,433.9	$1,508.7	$1,583.5	$1,658.3	$74.8	($10.6)
$60	$1,487.0	$1,571.9	$1,656.8	$1,741.8	$1,826.7	$1,911.7	$84.9	($10.6)
Change Per Dollar Increase in WTI Price	$40.5	$42.6	$44.6	$46.6	$48.6	$50.7		

* Calculated from July 2006: $73 Million exemption; does not include transition; volumes per DOR Fall 2005 Forecast with [illegible] projection

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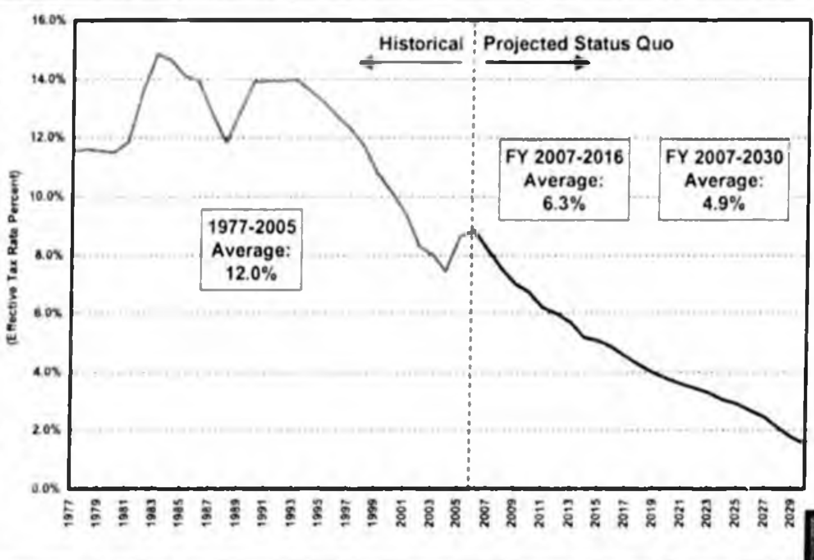
Effective Severance Tax Rates Over Time



Source: Historical: Alaska Department of Revenue.

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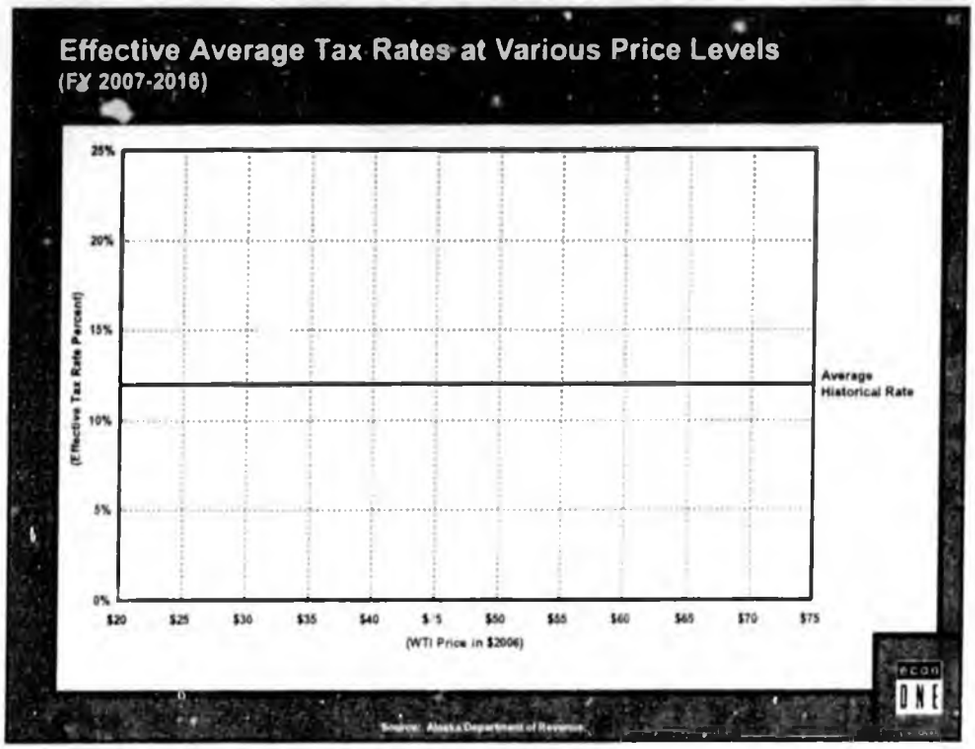
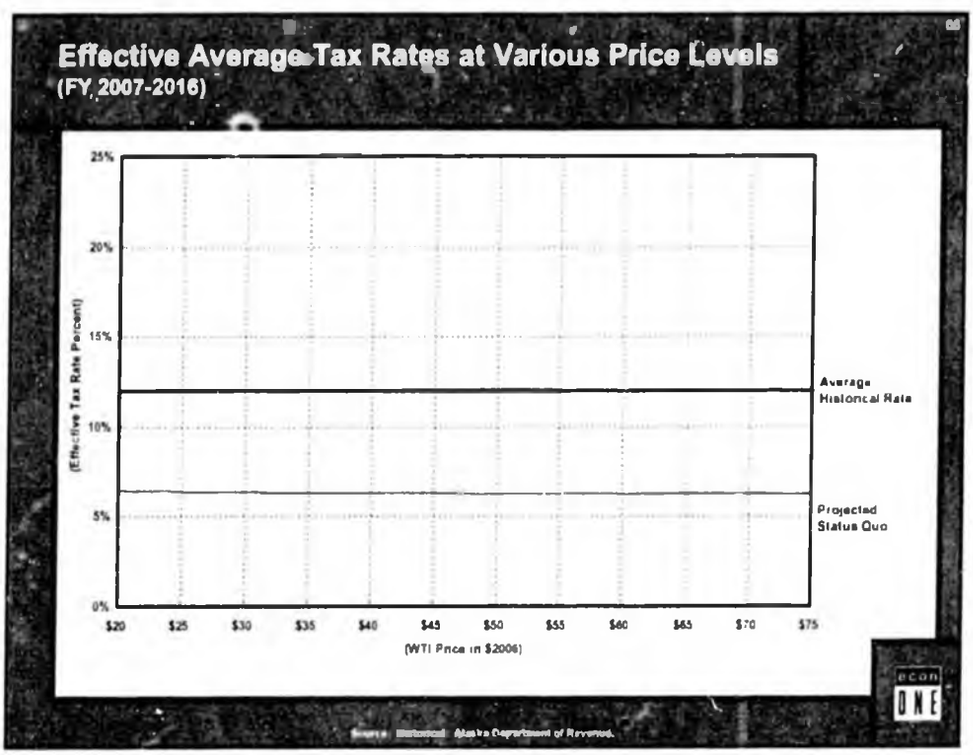
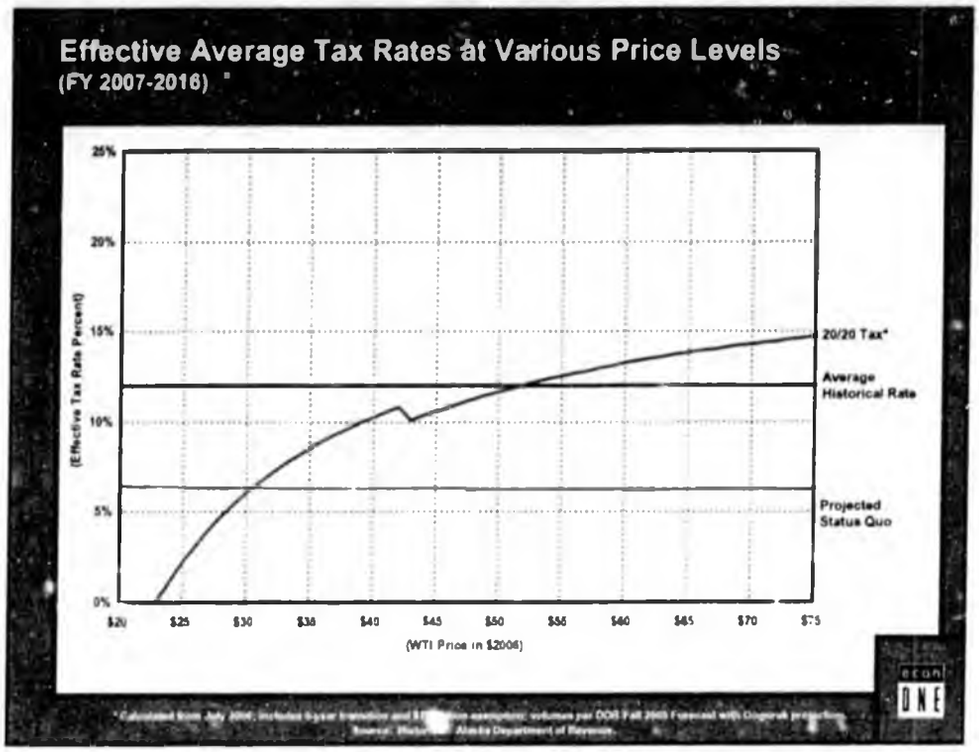

Effective Average Tax Rates at Various Price Levels
(FY 2007-2016)
25%
20%
15%
10%
5%
0%
(Effective Tax Rate Percent)
Average
Historical Rate
$20
$25
$30
$35
$40
$45
$50
$55
$60
$65
$70
$75
(WTI Price in $2006)
econ
ONE


Effective Average Tax Rates at Various Price Levels
(FY 2007-2016)
25%
20%
15%
10%
5%
0%
(Effective Tax Rate Percent)
Average
Historical Rate
Projected
Status Quo
$20
$25
$30
$35
$40
$45
$50
$55
$60
$65
$70
$75
(WTI Price in $2006)
econ
ONE


Effective Average Tax Rates at Various Price Levels
(FY 2007-2016)
25%
20%
15%
10%
5%
0%
(Effective Tax Rate Percent)
20/20 Tax*
Average Historical Rate
Projected Status Quo
$20
$25
$30
$35
$40
$45
$50
$55
$60
$65
$70
$75
(WTI Price in $2006)
econ ONE


Effective Average Tax Rates at Various Price Levels
(FY 2007-2016)
25%
20%
15%
10%
5%
0%
(Effective Tax Rate Percent)
25/20 Tax*
20/20 Tax*
Average Historical Rate
Projected Status Quo
$20
$25
$30
$35
$40
$45
$50
$55
$60
$65
$70
$75
(WTI Price in $2006)
econ ONE

Example of Tax with Sliding Scale

Assumptions: 0.25% per dollar over $45/barrel WTI (threshold);
$55/barrel WTI price;
$47/barrel ANS wellhead price;
20/20 PPT.

- Sliding Scale Tax in Addition to PPT, and Deductible Against PPT
- If WTI is <= Threshold price (e.g., $45): No Additional Tax
- If WTI is > Threshold price: Additional Tax Equals 0.25% Per Dollar Over Threshold x Gross Wellhead Value

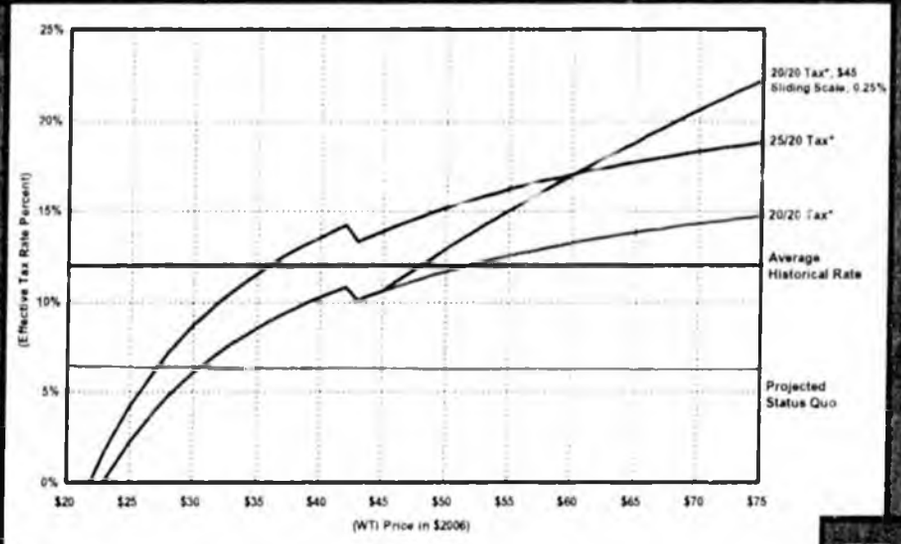
Additional Tax = (WTI Price - Threshold) x Increment Rate x ANS Wellhead Price x (1 - PPT Tax Rate)

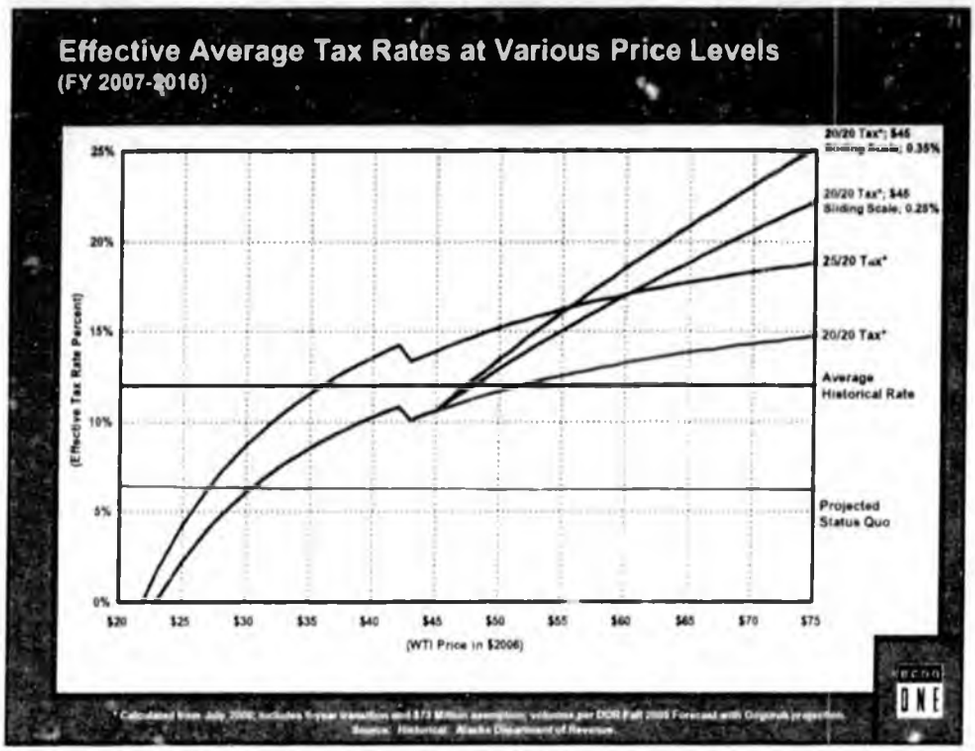
= ($55 - $45) x 0.25% x $47 x (1 - 20%)

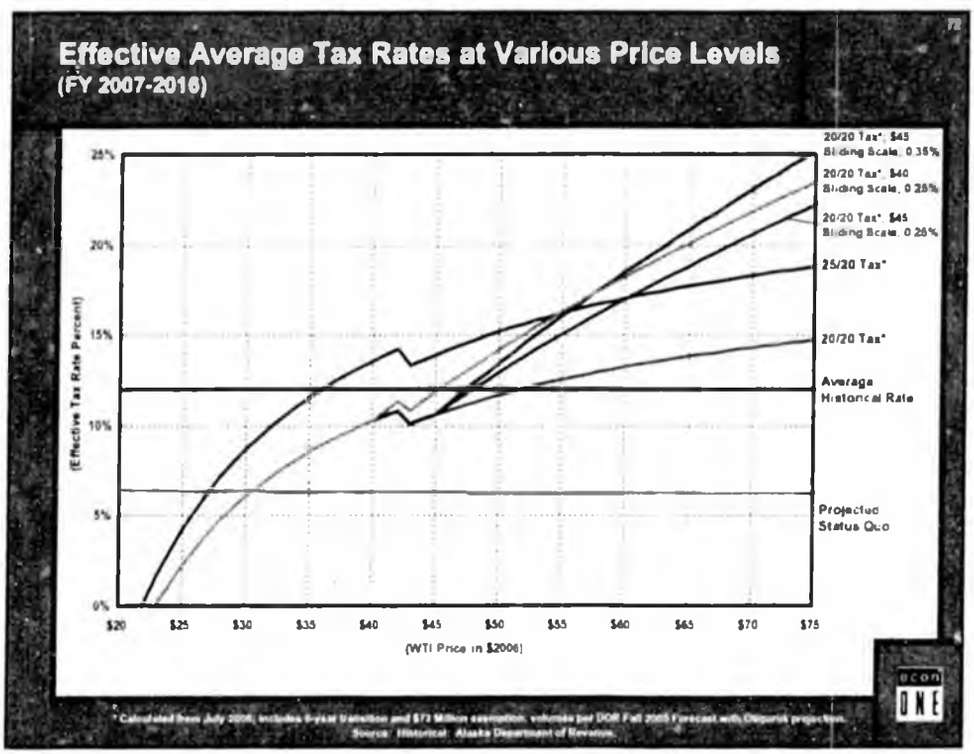
= 2.5% x $47 x 80%

= $0.94

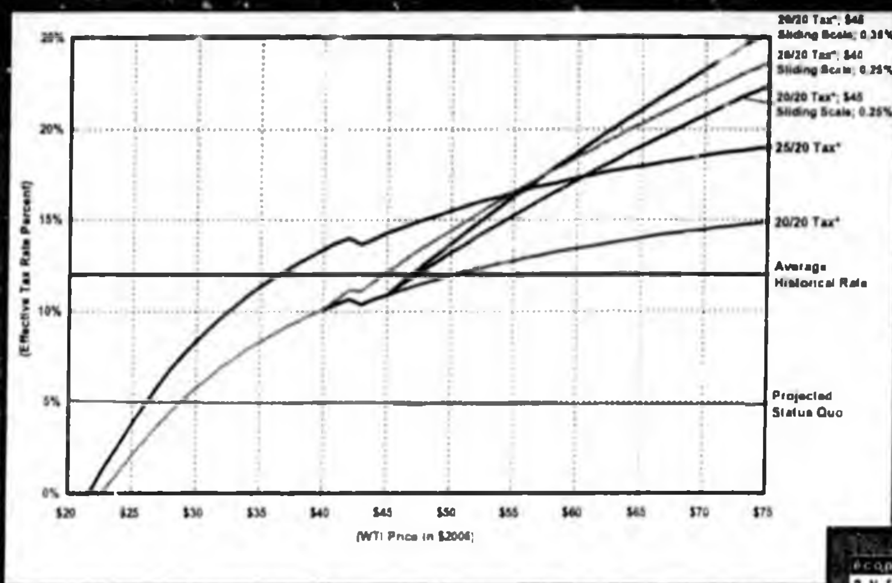
Effective Average Tax Rates at Various Price Levels
(FY 2007-2016)




Effective Average Tax Rates at Various Price Levels
(FY 2007-2016)
25%
20%
15%
10%
5%
0%
(Effective Tax Rate Percent)
$20
$25
$30
$35
$40
$45
$50
$55
$60
$65
$70
$75
(WTI Price in $2006)
20/20 Tax*; $45
Sliding Scale; 0.35%
20/20 Tax*; $45
Sliding Scale; 0.25%
25/20 Tax*
20/20 Tax*
Average
Historical Rate
Projected
Status Quo
econ
ONE


Effective Average Tax Rates at Various Price Levels
(FY 2007-2016)
25%
20%
15%
10%
5%
0%
(Effective Tax Rate Percent)
$20
$25
$30
$35
$40
$45
$50
$55
$60
$65
$70
$75
(WTI Price in $2006)
20/20 Tax*; $45
Sliding Scale; 0.35%
20/20 Tax*; $40
Sliding Scale; 0.25%
20/20 Tax*; $45
Sliding Scale; 0.25%
25/20 Tax*
20/20 Tax*
Average
Historical Rate
Projected
Status Quo
econ
ONE

Effective Average Tax Rates at Various Price Levels
(FY 2007-2030)



* Calculated from July 2006; [illegible] Forecast with Osgoruk projection. [illegible] Alaska Department of Revenue

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Projected Effective Tax Rates with Sliding Scale Tax DOR Forecast Production (FY 2007-2030)*

			20/20 with Sliding Scale Tax							
			$35 Threshold Price				$40 Threshold Price			
WTI Price	Status Quo	20/20	0.20% Increment	0.25% Increment	0.30% Increment	0.35% Increment	0.20% Increment	0.25% Increment	0.30% Increment	0.35% Increment
($ 2006)			(Percent)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$30	4.9%	8.8%	5.8%	5.8%	[illegible]	5.8%	5.8%	5.8%	5.8%	5.8%
$40	4.9%	10.0%	11.0%	11.3%	[illegible]	11.8%	10.0%	10.0%	10.0%	10.0%
$50	4.9%	11.9%	14.9%	15.7%	[illegible]	17.2%	13.9%	14.4%	14.9%	15.4%
$60	4.9%	13.4%	18.4%	19.7%	[illegible]	22.2%	17.4%	18.4%	19.4%	20.4%
$70	4.8%	14.8%	21.5%	23.2%	25.0%	28.7%	20.5%	22.0%	23.5%	25.0%
$80	4.8%	15.2%	24.2%	26.5%	28.7%	31.0%	23.2%	25.2%	27.2%	29.2%

		25/20 with Sliding Scale Tax							
		$40 Threshold Price				$50 Threshold Price			
WTI Price	25/20	0.20% Increment	0.25% Increment	0.30% Increment	0.35% Increment	0.20% Increment	0.25% Increment	0.30% Increment	0.35% Increment
($ 2006)		(Percent)							
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
$30	8.3%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%
$40	13.3%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
$50	15.8%	12.9%	13.2%	13.4%	13.7%	11.6%	11.9%	11.9%	[illegible]
$60	17.3%	16.4%	17.2%	17.9%	18.7%	15.4%	15.9%	16.4%	16.9%
$70	18.8%	19.5%	20.7%	22.0%	23.2%	18.5%	19.5%	20.5%	21.5%
$80	19.4%	22.2%	24.0%	25.7%	27.5%	21.2%	22.7%	24.2%	25.7%

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* Calculated from July 2006; [illegible] and $73 Million exemption; volumes per DOR Fall 2005 Forecast with Osgoruk projection.

Projected Government Takes with Sliding Scale Tax
DOR Forecast Production (FY 2007-2030)*

			20/20 with Sliding Scale Tax							
			$35 Threshold Price				$40 Threshold Price			
WTI Price	Status Quo	20/20	0.20% Increment	0.25% Increment	0.30% Increment	0.35% Increment	0.20% Increment	0.25% Increment	0.30% Increment	0.35% Increment
($ 2006)			(Percent)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
$30	57.0%	**57.7%**	57.7%	57.7%	57.7%	57.7%	57.7%	57.7%	57.7%	57.7%
$40	53.7%	**57.2%**	58.0%	58.2%	58.4%	58.6%	57.3%	57.3%	57.3%	57.3%
$50	52.3%	**56.0%**	58.9%	59.4%	59.9%	60.4%	58.2%	58.5%	58.9%	59.2%
$60	51.5%	**56.0%**	60.0%	60.8%	61.6%	62.4%	59.4%	60.0%	60.7%	61.3%
$70	50.9%	**56.0%**	61.2%	62.3%	63.3%	64.4%	60.6%	61.5%	62.4%	63.3%
$80	50.6%	**56.0%**	62.3%	63.7%	65.0%	66.4%	61.7%	62.9%	64.1%	65.3%

		20/20 with Sliding Scale Tax							
		$45 Threshold Price				$50 Threshold Price			
WTI Price	20/20	0.20% Increment	0.25% Increment	0.30% Increment	0.35% Increment	0.20% Increment	0.25% Increment	0.30% Increment	0.35% Increment
($ 2006)		(Percent)							
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
$30	**56.7%**	57.7%	57.7%	57.7%	57.7%	57.7%	57.7%	57.7%	57.7%
$40	**56.7%**	57.3%	57.3%	57.3%	57.3%	57.3%	57.3%	57.3%	57.3%
$50	**56.3%**	57.6%	57.7%	57.9%	58.1%	56.9%	56.9%	56.9%	56.9%
$60	**56.3%**	58.8%	59.3%	59.7%	60.2%	58.1%	58.5%	58.8%	59.1%
$70	**56.3%**	59.9%	60.7%	61.5%	62.3%	59.3%	59.9%	60.6%	61.2%
$80	**56.4%**	61.1%	62.1%	63.2%	64.3%	60.5%	61.4%	62.3%	63.2%

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* [illegible]