

ALASKA LEGISLATURE COMMITTEE FILES 2007-2008 RES 12714



Where is the tipping point?

- **Quite legitimately several legislators have asked their advisors and the companies how far is just right and how far is too far?**
 - The companies have complex decision making processes with many external factors at play and can't articulate what impact a change in Alaska taxes will have
 - Rock (Prospectivity) trumps Scissors (Fiscal) - Chevron
 - *Scissors (Fiscal) cut Paper (Profit)*
 - *Paper (Buy Reserves) covers Rock (Develop Reserves)*
 - Consultants acknowledge that taxes are but one of many factors that control decision making, and cannot say with certainty what tax rate is just right



Overall Observations

- **We agree with industry that there is significant upside in reducing the decline from existing producing assets**
- **The economics of reinvestment in producing assets on the North Slope are extremely profitable**
 - Evaluated with actual costs, production and prices as reported by BP
 - Profitable even when tested against various stress points



AOGA Testimony to the House

In discussing the merits of HB 2001 versus PPT and the Administration's concerns, we must always keep in mind the real-world situation that Alaska faces. The greatest challenge that confronts this generation of Alaskans and the next is the ongoing decline of oil production, which has been, is today, and promises to remain the cornerstone of the finances of state government.

- **The fiscal system chosen must recognize the current and near-term importance of improving production from existing assets.**



AOGA Testimony – Recent Success

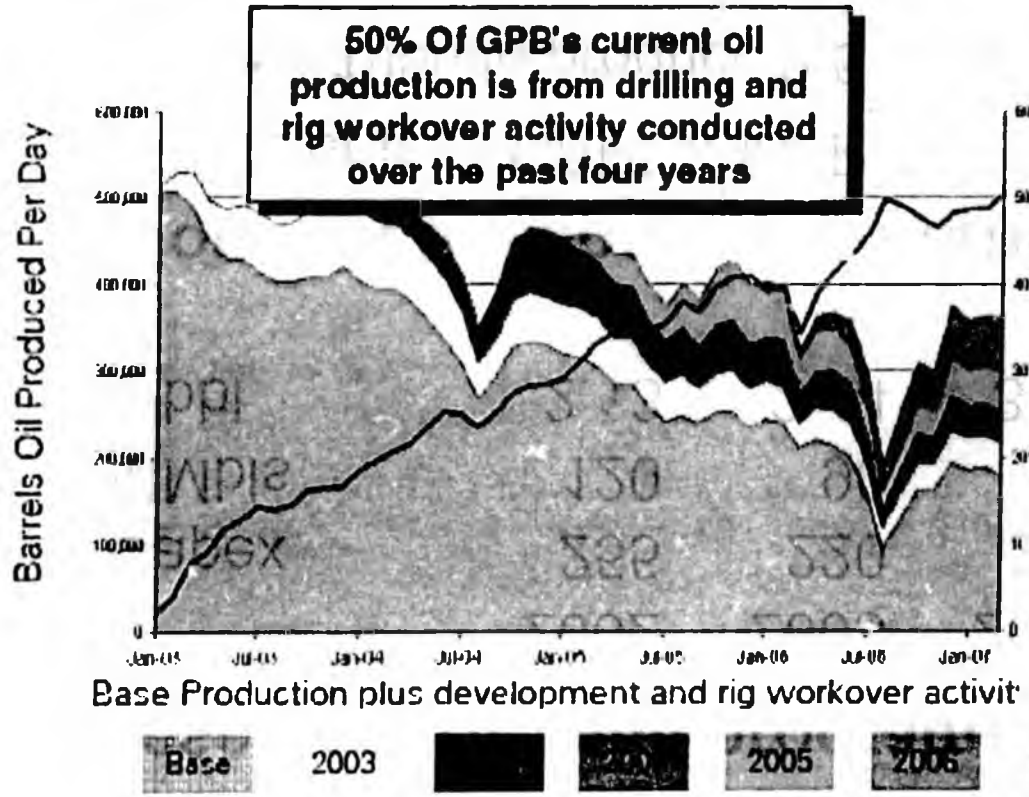
This gets us to investment in currently producing fields. Fortunately, there are investments that can be made, and are being made, in these fields to slow their decline. In the short term, this is in-fill drilling — that is, drilling new wells into the portions of a reservoir that are between the wells that have already been drilled. This accelerates the drainage of oil from the rock that currently lies in between existing wells. In-fill drilling last year contributed some 70,000 barrels a day to production from the Prudhoe Bay field. To put this into perspective, a 70,000 barrel per day field would be the 4th largest stand-alone field on the North Slope today.

- **AOGA noted that North Slope field life could be extended up to another 25 years with continued investment**
- **The oil companies achieved 70,000 bpd of additional production from the 2006 drilling program in Prudhoe Bay.**



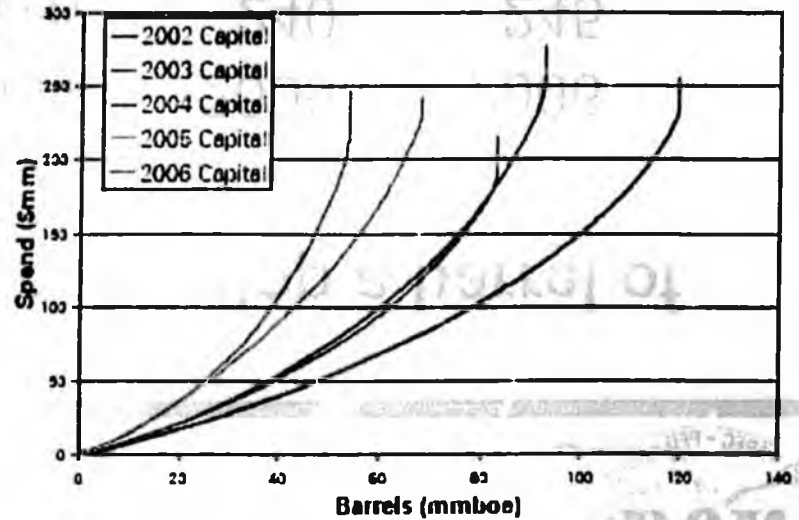
BP's infill drilling program

50% Of GPB's current oil production is from drilling and rig workover activity conducted over the past four years



Observations?

GPB Well Investments 2002-2006



BP House testimony page 12



Costlier Development

- It is getting more expensive to develop a barrel of reserves (BP Infill program)

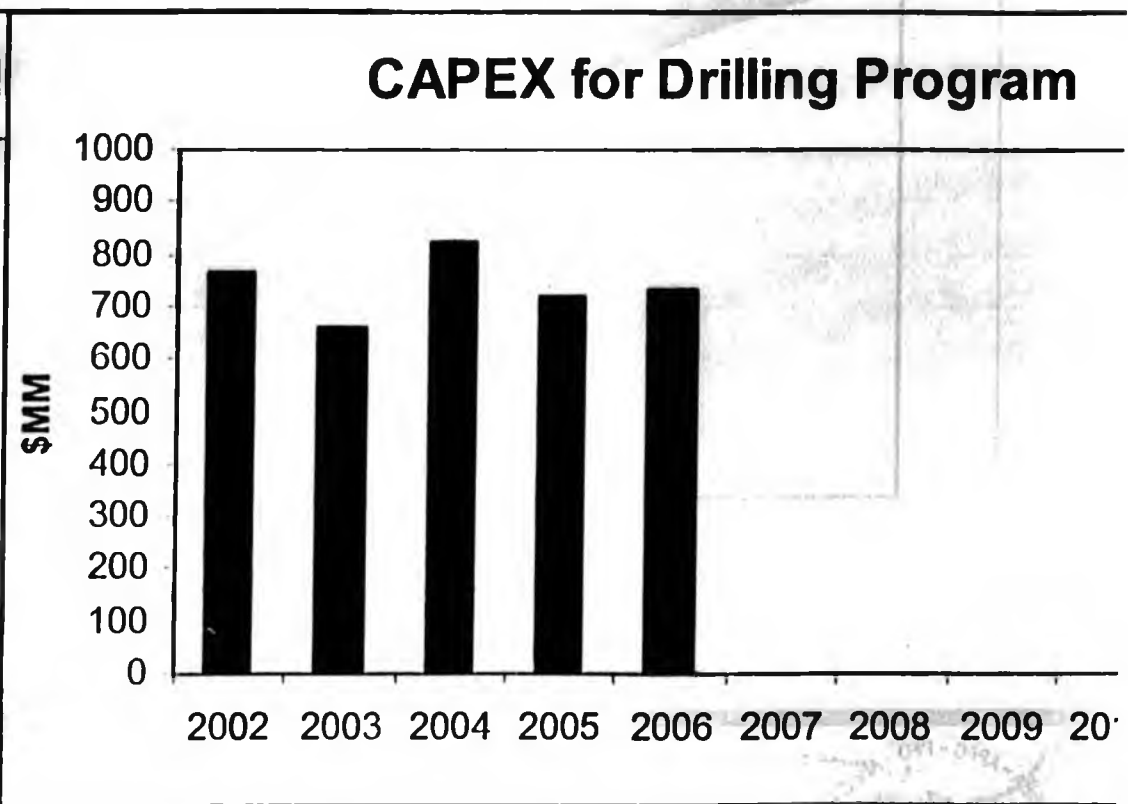
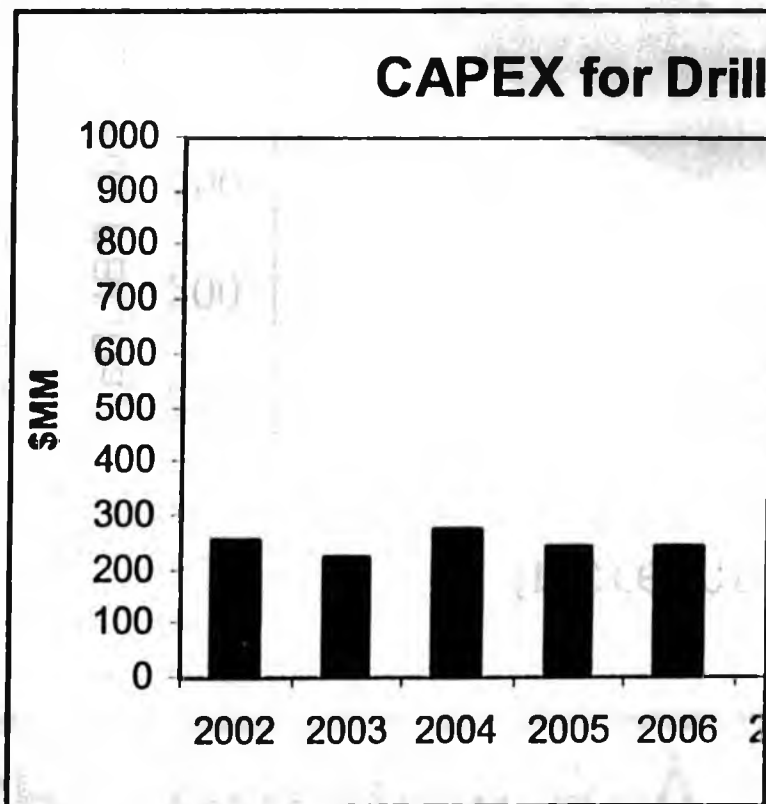
	2002	2003	2004	2005	2006
Capex	255	220	275	240	245
MMbbls	120	90	80	60	50
\$/bbl	2.13	2.44	3.44	4.00	4.90

- Contrast the above per barrel F&D costs with:
 - \$2 or less CAPEX for Prudhoe and Kuparuk to date
 - \$19bn to produce 9.5 bn bbls
 - The P/K upside at \$3.5(15%), \$7.7 (6%), \$12 (3%)
 - Pioneer's view of average F&D for Lower-48 of \$14



5 Year Prudhoe Drilling Program

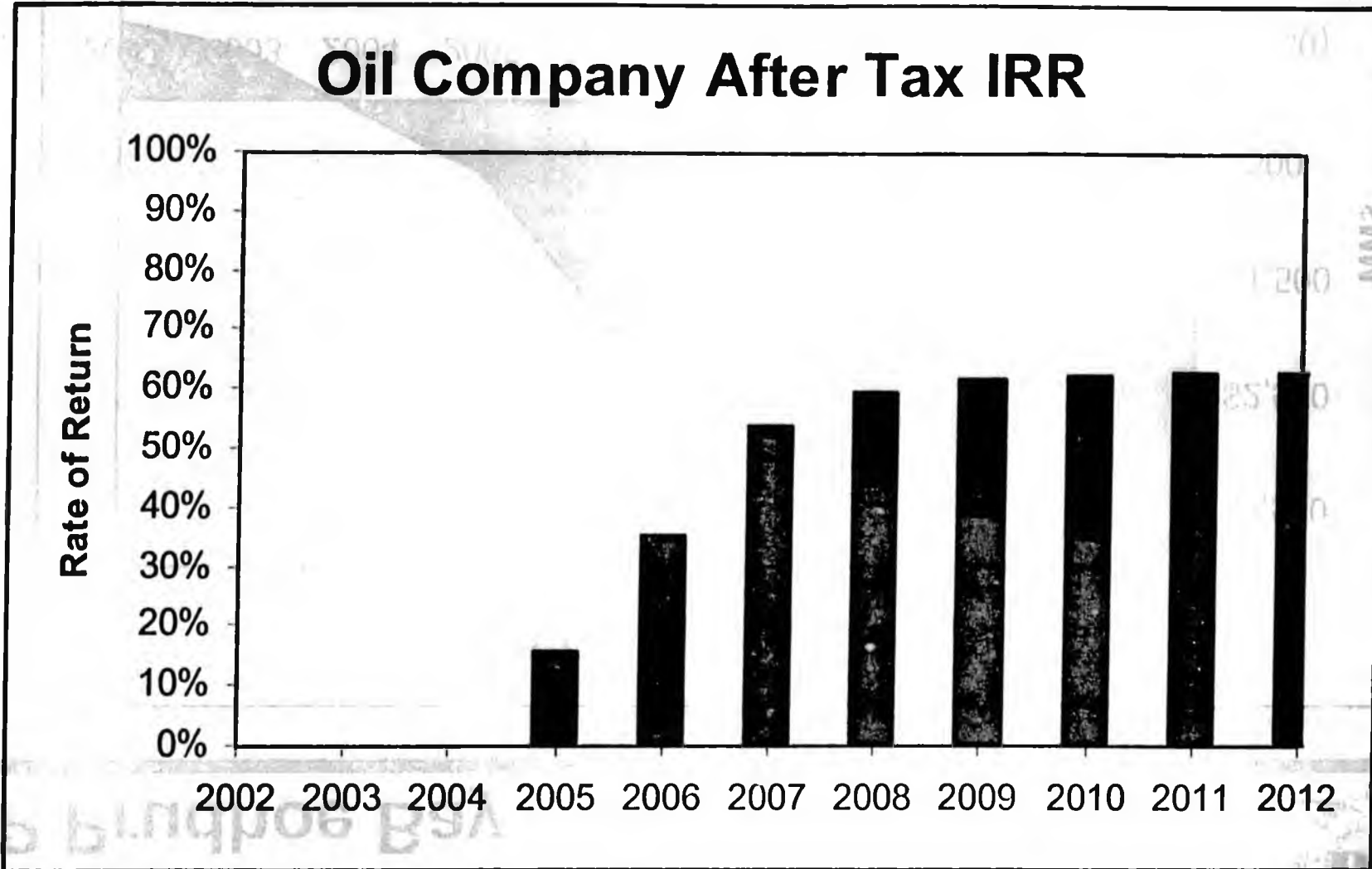
- Drilling capex – 300% for added facilities/injection





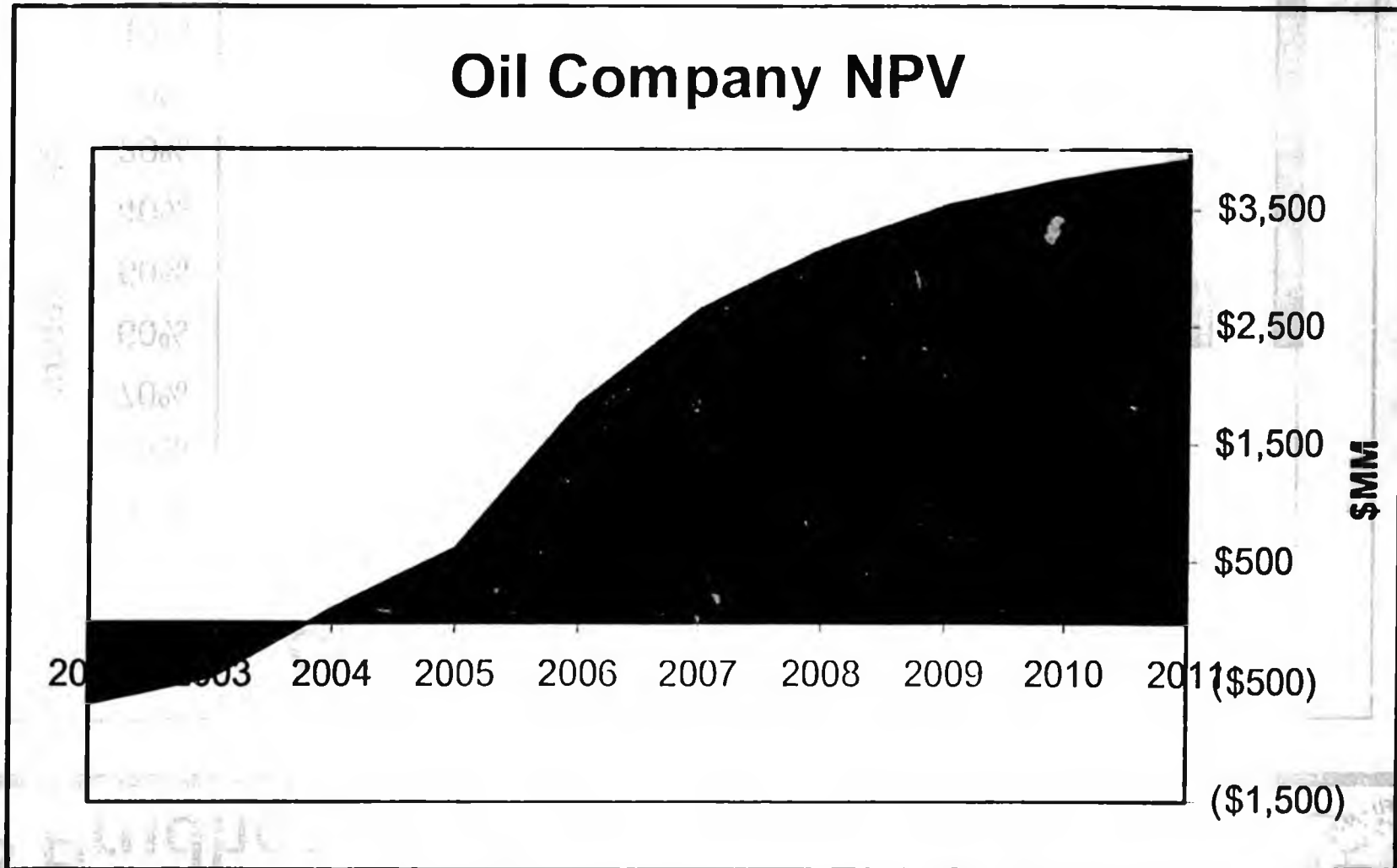
BP Prudhoe Bay

Oil Company After Tax IRR



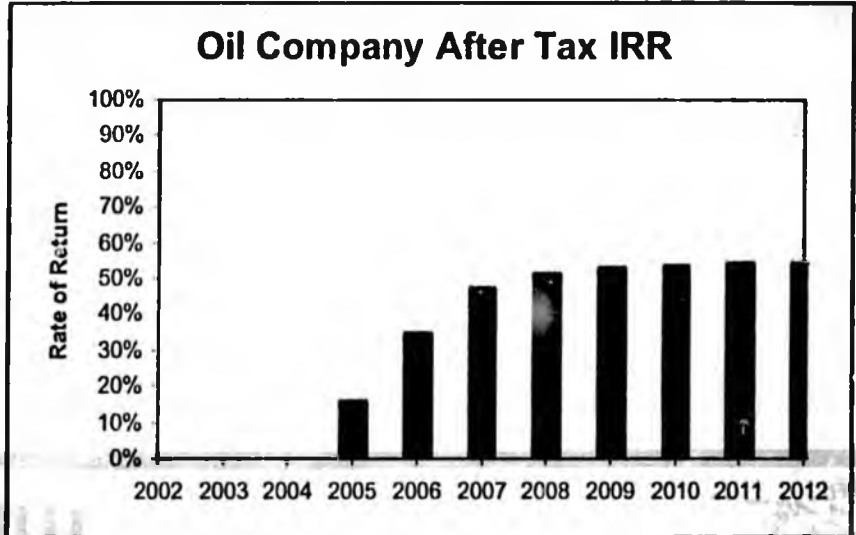
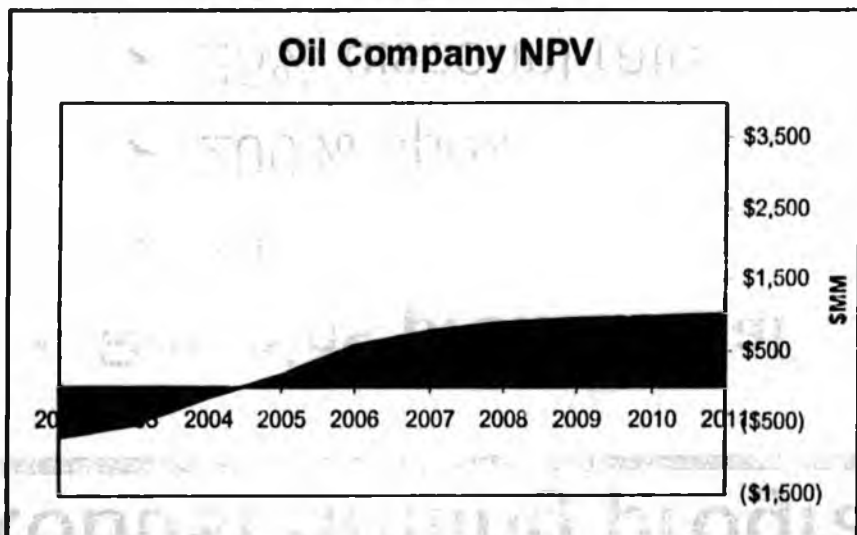
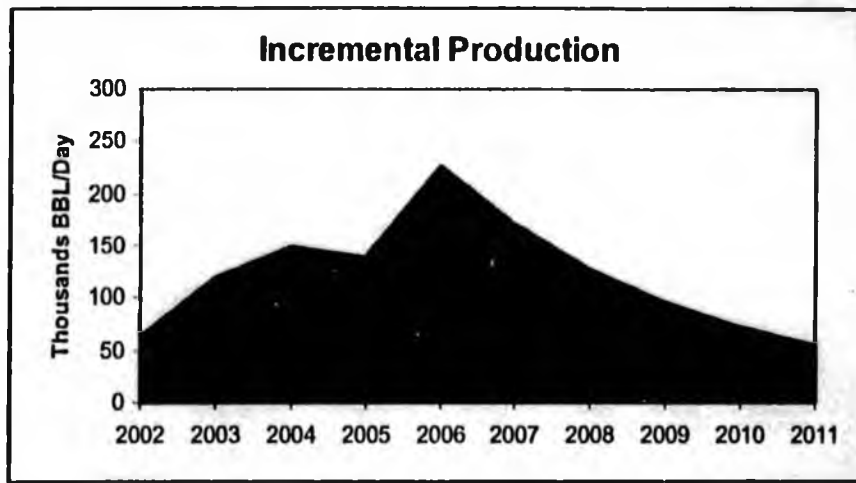
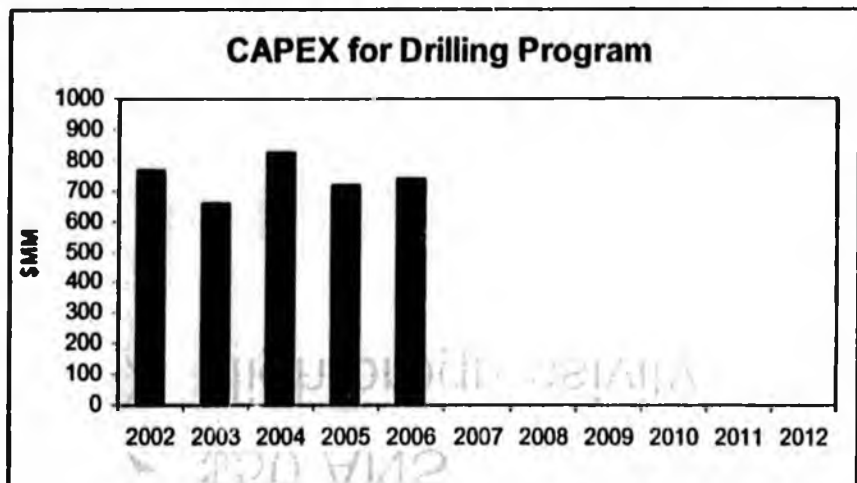


BP Prudhoe Bay





Overly Stressed Case





Model Demonstration

- ▶ 520 000 per abandonment rate
- ▶ Used indicated decline rates and investments
- ▶ Built a generic model based on the above parameters

	2008	2009	2010
Industry Investment	22 bn	25 bn	27 bn
Produced Barrels	1.3 bn	1.3 bn	1.2 bn
Decline Rate	20%	20%	20%



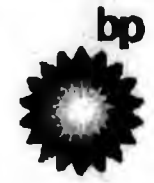
North Slope Potential





North Slope Potential

Production Drives Revenue



Decline Rate	15%	6%	3%
Produced Barrels	1.3 bn	3.9 bn	7.5 bn
Industry Investment	\$5 bn	\$25 bn	\$70 bn
		Status quo	

- **Built a generic model based on the above barrels and investments**
 - Used indicated decline rates
 - 250,000 bpd abandonment rate



Under PPT

Production Drives Revenue



Decline Rate	15%	6%	3%
Produced Barrels	1.3 bn	3.9 bn	7.5 bn
Industry Investment	\$5 bn	\$25 bn	\$70 bn
		Status quo	

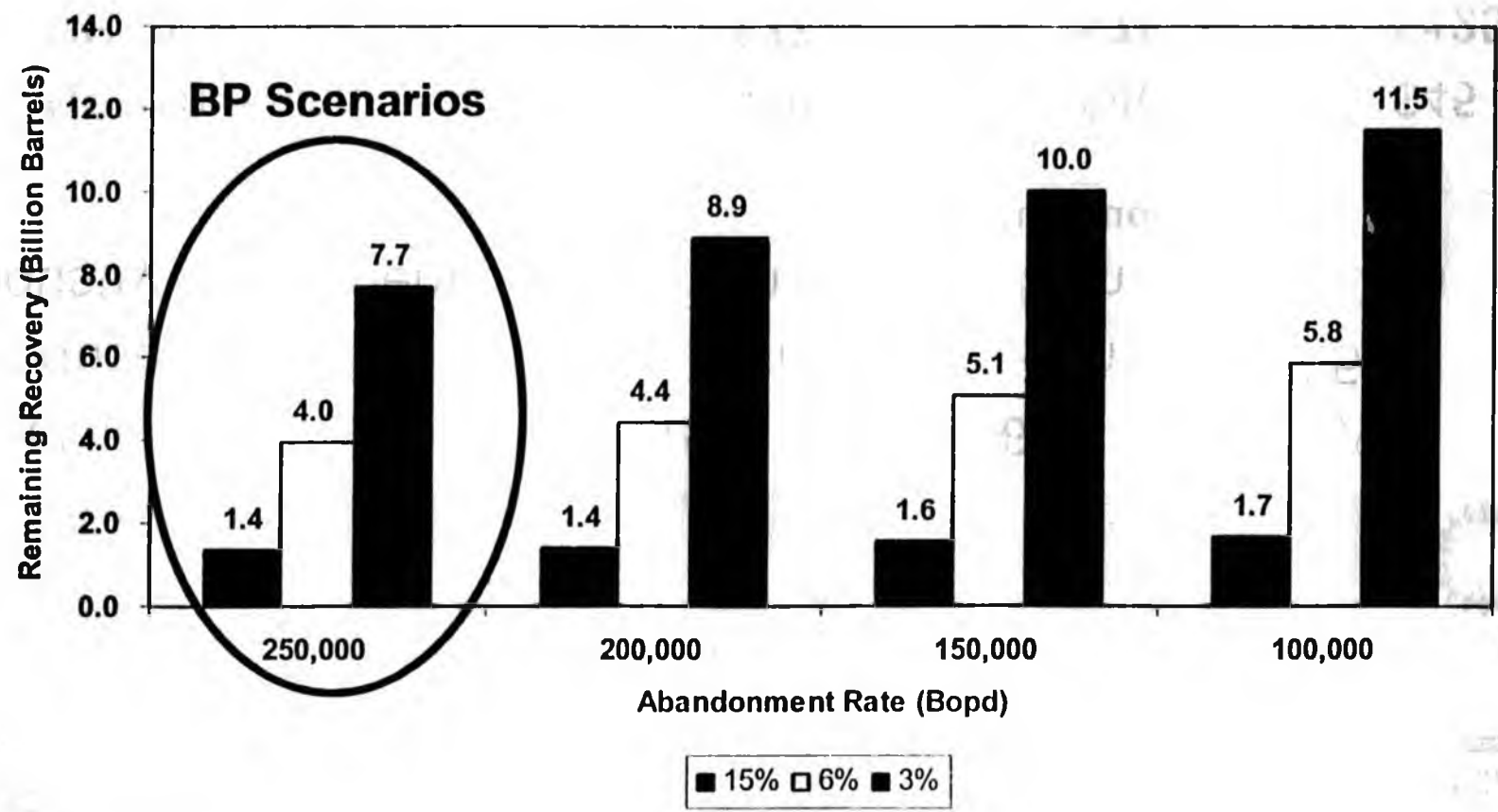
- | | | | |
|-----------------|---------------|---------------|----------------|
| • NPV10 = \$Bn | • \$15 - \$20 | • \$30 - \$40 | • \$35 - \$45 |
| • NPV0 = \$Bn | • \$22 - \$27 | • \$55 - \$75 | • \$90 - \$125 |
| • NPV0 = \$/bbl | • \$15 - \$20 | • \$14 - \$19 | • \$12 - \$17 |

~ \$80/bbl WTI, \$70/bbl NS



North Slope Abandonment

Impact Of Abandonment Rate On North Slope Recovery



Summary

... about future
 ...
 ...
 ... as soon as possible - I ...

analyst growth expectations

If the production volumes associated with the 6% and 3%

Goals

... on booked as proved
 ...
 ...

• Drilling program is so profitable that under even the most
 extreme net tax structure, oil companies would want to
 continue their reinvestment program.



Goals for Fiscal Design

- **Based on hearings, discussions and other dialog we (GCA) see the following as the goals you are trying to achieve in this special session:**
 1. Fields with larger **profitability** should be paying more taxes
 2. Encourage investment in existing units
 - Reinvestment in producing assets
 - Investment in new developments
 - ❖ Conventional
 - ❖ Unconventional (i.e. heavy oil)
 3. Encourage new investment outside legacy units
 - Level playing field for incumbents and new entrants
 4. Durability
 - Don't want to be back 'fixing' things
 5. Build on prior tax dialogue



(3) Encourage New Investment

- **Fiscal system should encourage investment in new fields**

*Mr. Ruggard
"One of best encourage
new investment"*

- Investment credits
- Net Operating Loss credits
 - Aid to new entrants with no existing tax base
- Lower tax rate for fields with higher cost structure
 - More distant from infrastructure
 - Heavy Oil
 - Gas

- **Is base rate low enough?**

Extends Life of TAPS

- Additional barrels down TAPS extends production from existing reservoirs



The Fiscal Design Challenge

- **The Take**

- (1) Fair share of the high margins currently being realized
- Progressive structure to adapt to changes in:

- Price
- Production
- Cost

3/29 57001

- **The Give Back**

- (2) Encouragement to reinvest profits for more development inside legacy units



Key Point Easily Misunderstood

- Development inside projects
- (5) Focus on development to achieve higher quality
- THE GIVE BACK

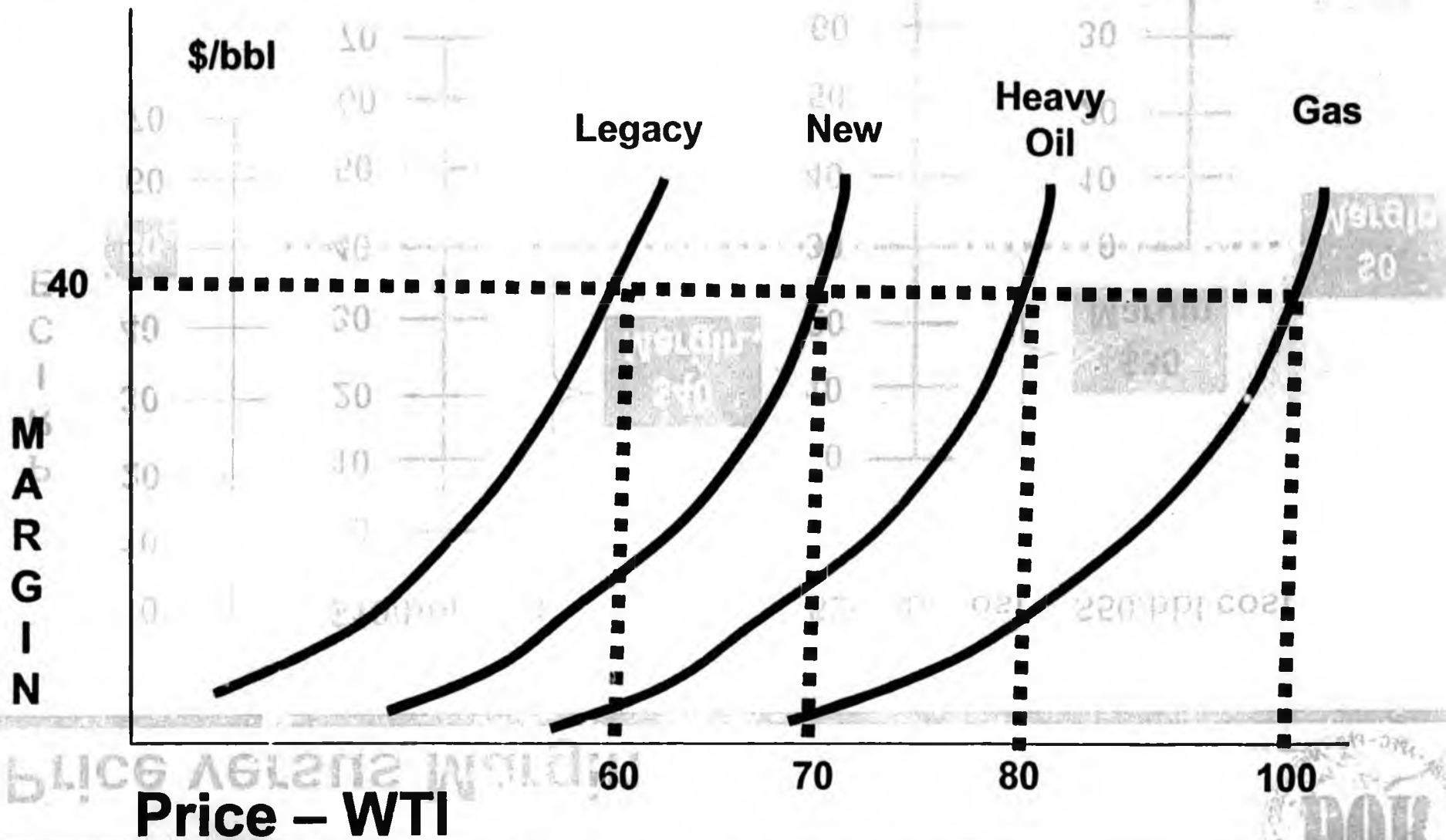
Price \neq Margin

- Price is not the same as margin
- Margin is the difference between price and cost
- Price is what you get, margin is what you keep
- The give back

THE BIGGEST DESIGN CHALLENGE

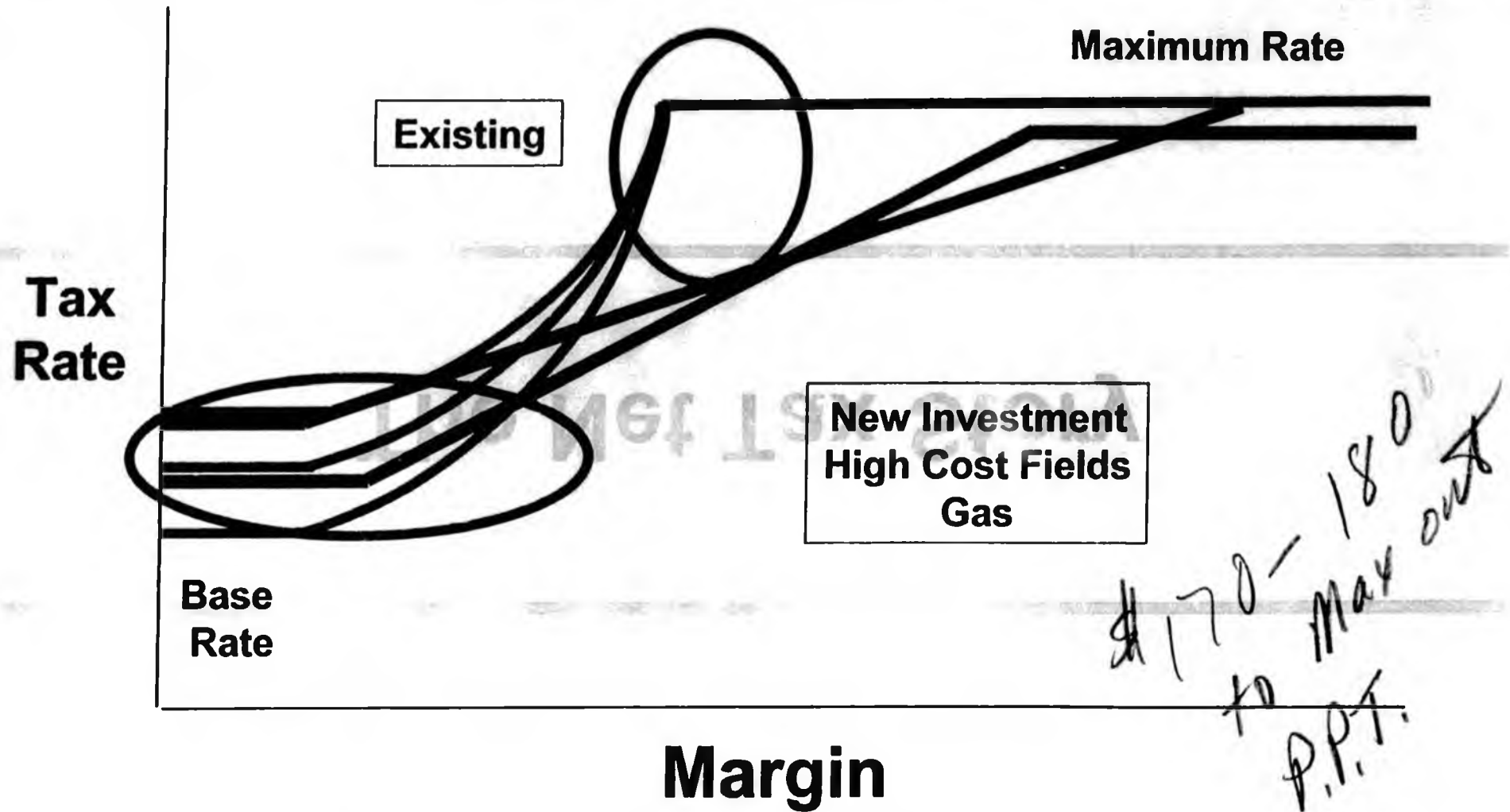


Margin versus Price





Pulled Into a single mechanism



Margin

57%
10/1/01
1/1/02
4/1/02

Rate

Rate

Rate

High Cost Fields

The Net Tax Story

Rate
TAX

EXTENDING

MAXIMUM RATE

Pushed into a single mechanism





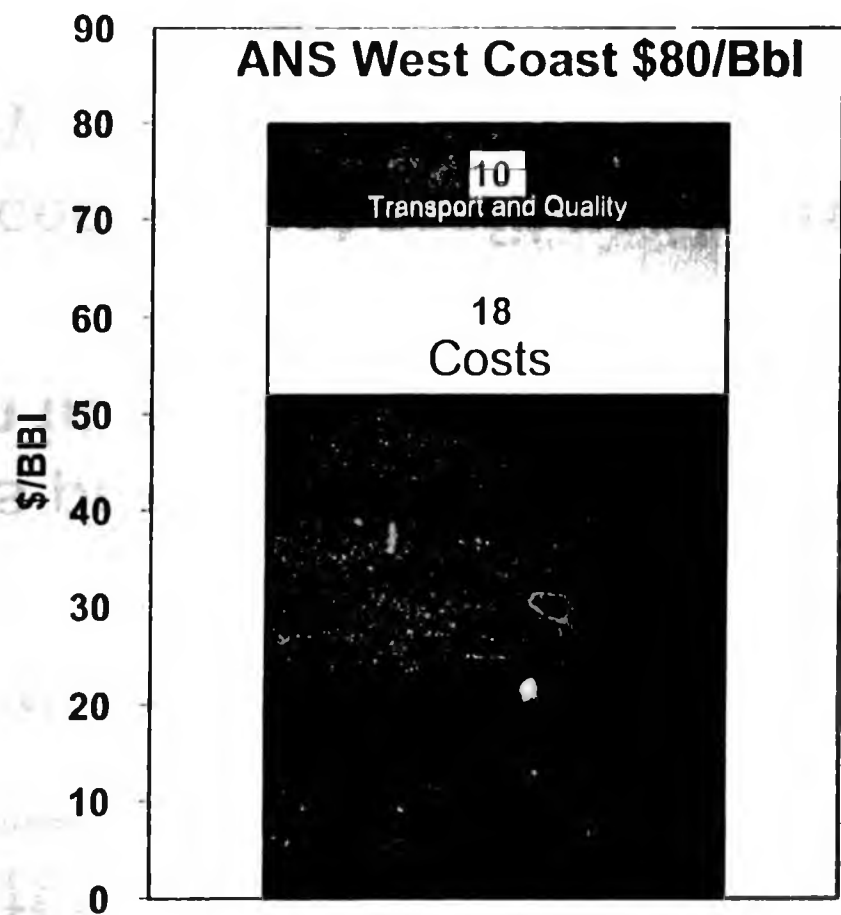
PPT As Often Described

- Tax on net profits
- Contains progressivity feature that increases tax rate with increasing profitability per barrel
- Ringfenced so that profit per barrel reflects a company's entire portfolio



The Information Used

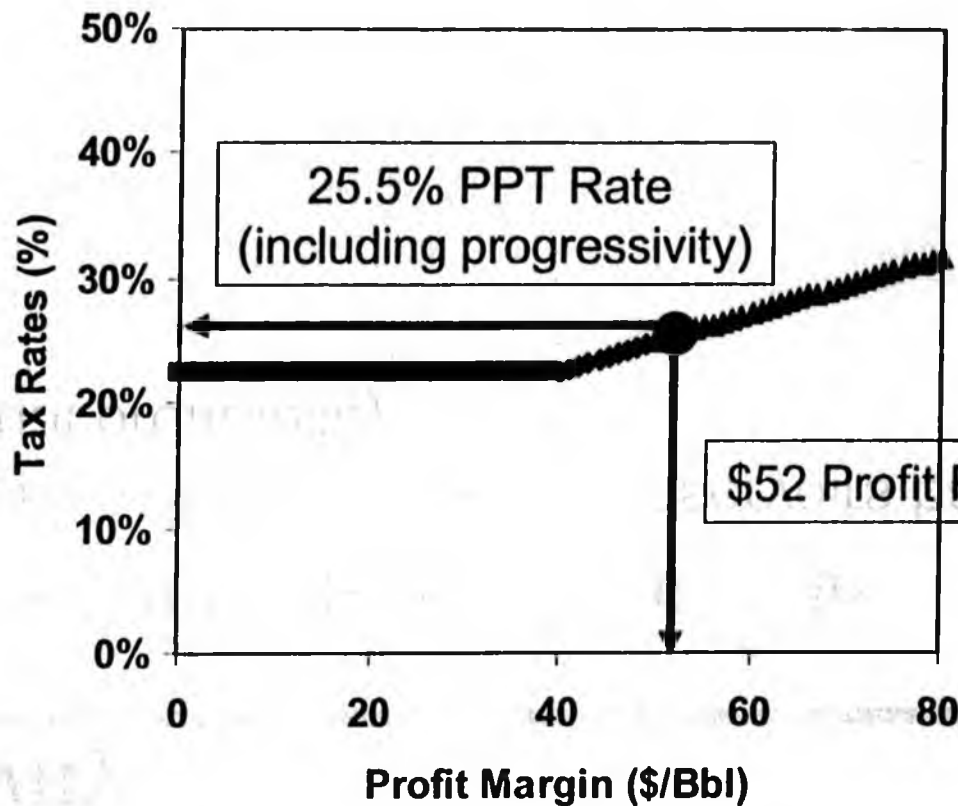
Portfolio Profitability



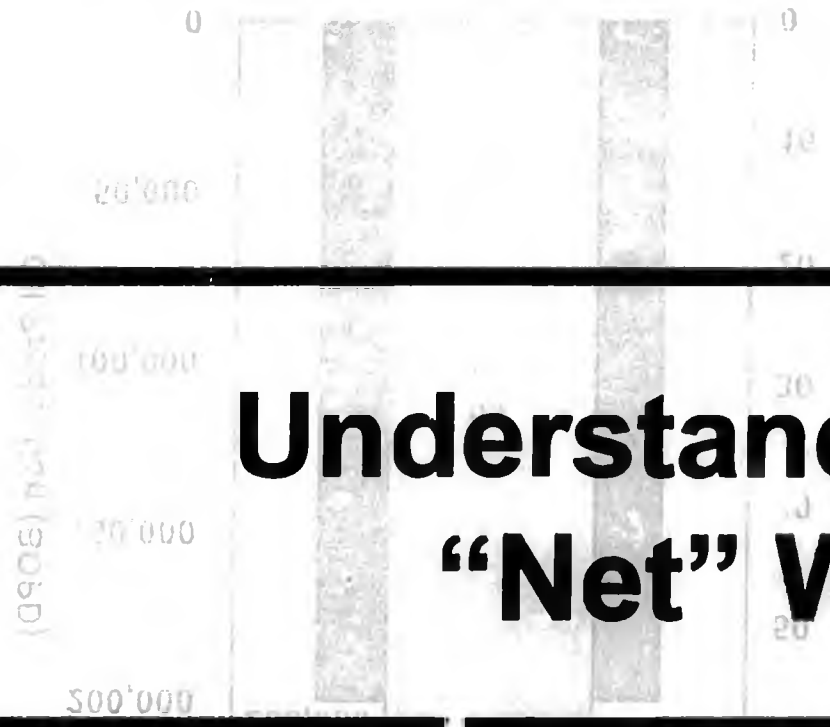


Based On \$52/Bbl Profit ...

Tax Rate Structure (Incorporating Progressivity)



Existing Reservoirs



Understanding How “Net” Works

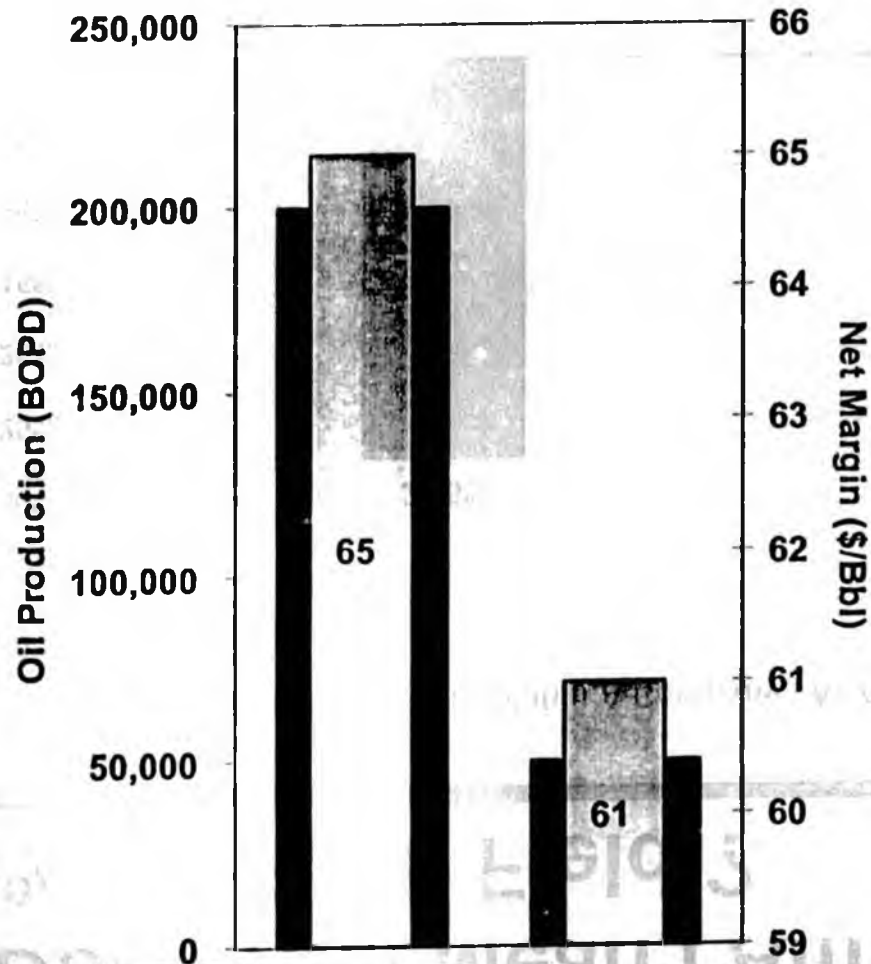
Start with a portfolio of long investment





Now, Add Another Field

Expanded Portfolio



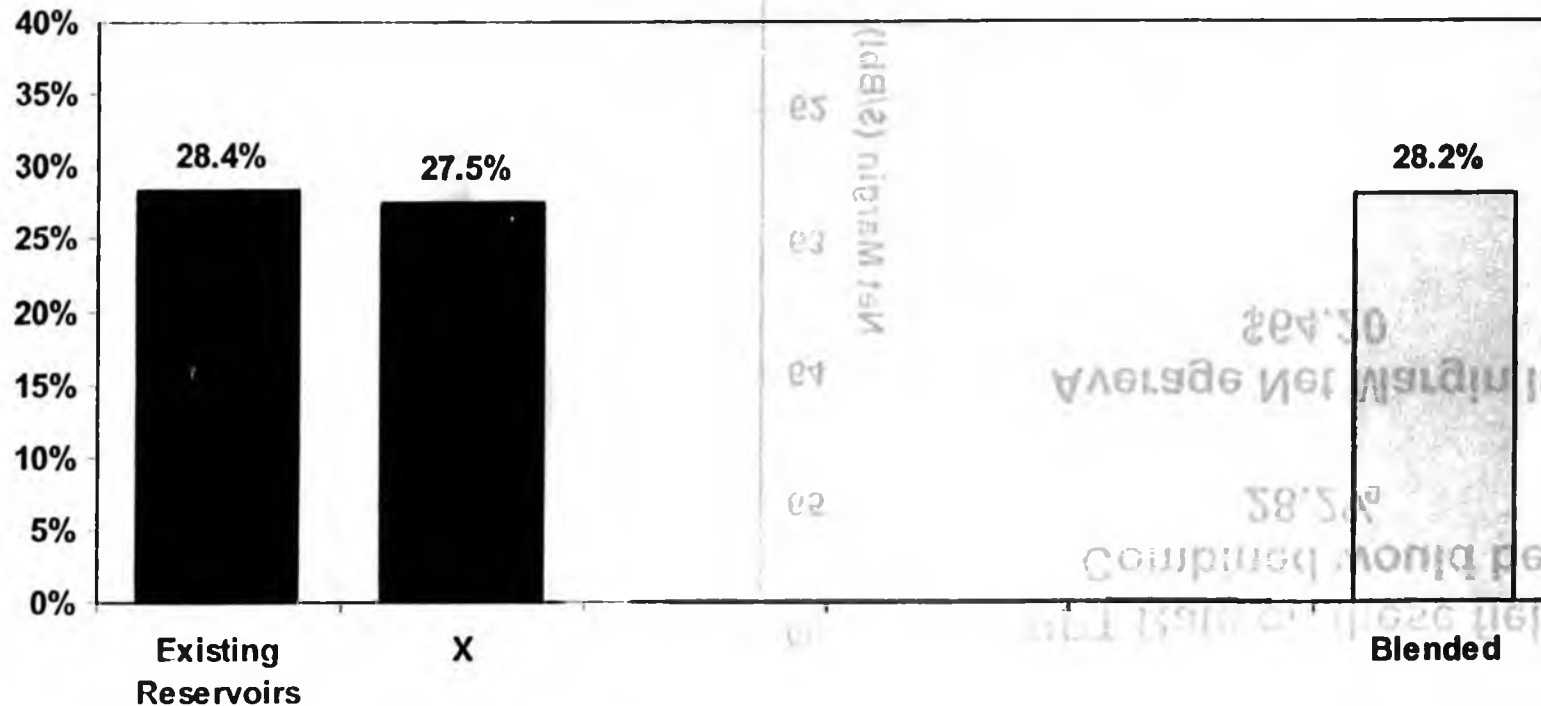
**PPT Rate on these fields
Combined would be
28.2%**

**Average Net Margin Is
\$64.20**

So, Does That Mean I Am Paying 28.2% On Each Field ?



Tax Rate By Field Within A Company - As Affected By Portfolio Blending



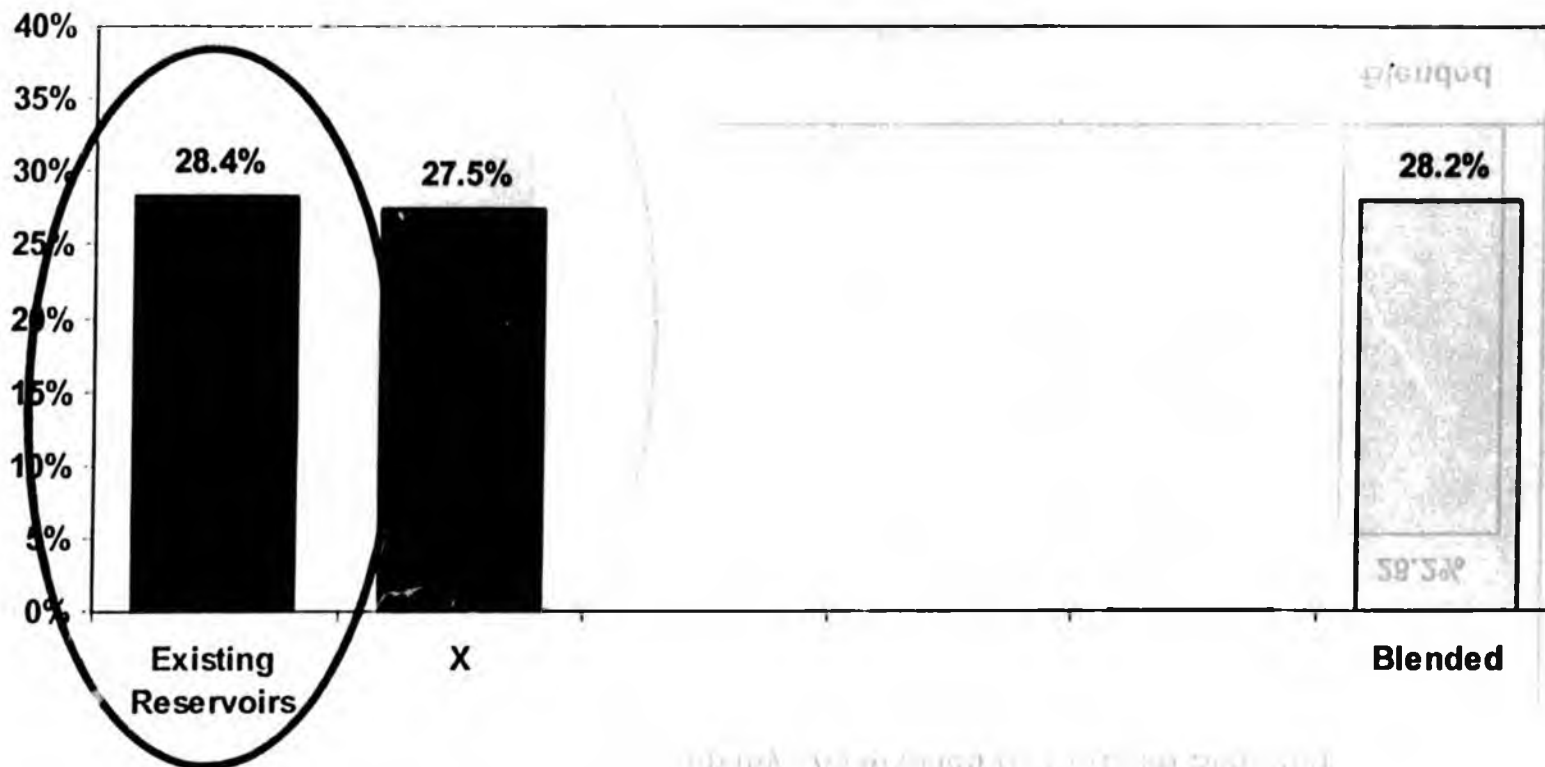
No

Look at this in the way that companies look at it when they make investment decisions

So, Does That Mean I Am Paying 28.2% On Each Field ?



Tax Rate By Field Within A Company - As Affected By Portfolio Blending

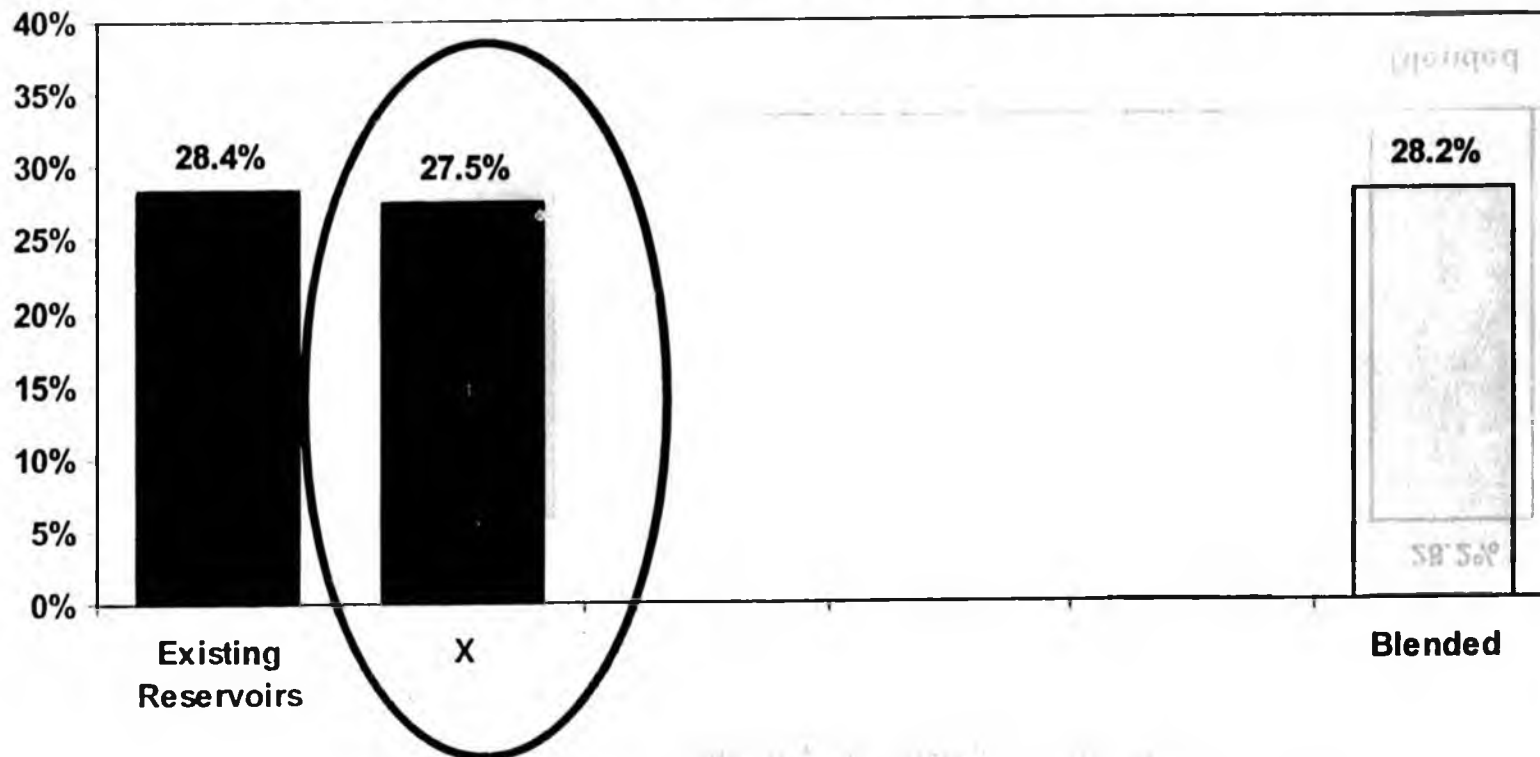


If I had just Existing Reservoirs, and did not develop anything new, I would pay tax on my profits at 28.4%

So, Does That Mean I Am Paying 28.2% On Each Field ?



Tax Rate By Field Within A Company - As Affected By Portfolio Blending

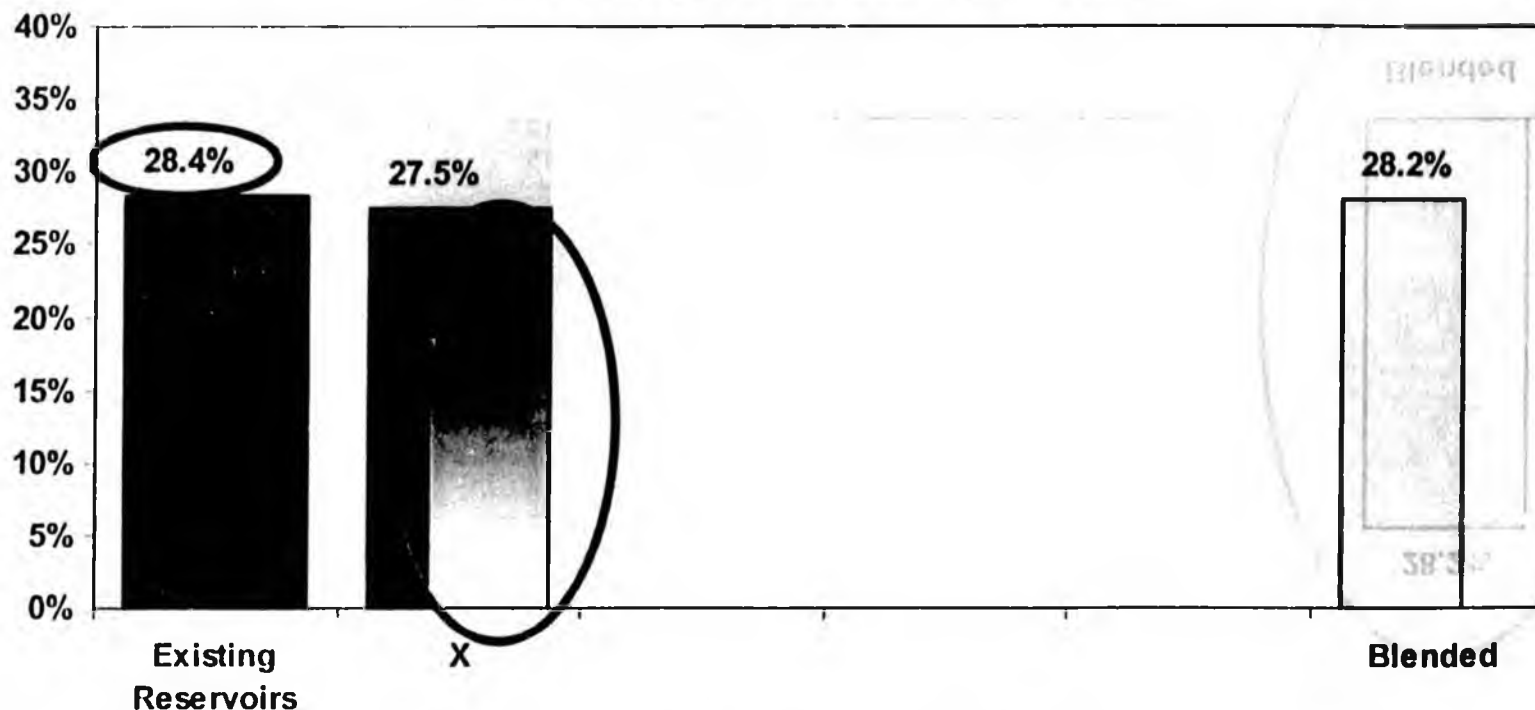


If I had just Field X, I would pay tax on my profits at 27.5% - its margin is slightly lower

So, Does That Mean I Am Paying 28.2% On Each Field ?



Tax Rate By Field Within A Company - As Affected By Portfolio Blending

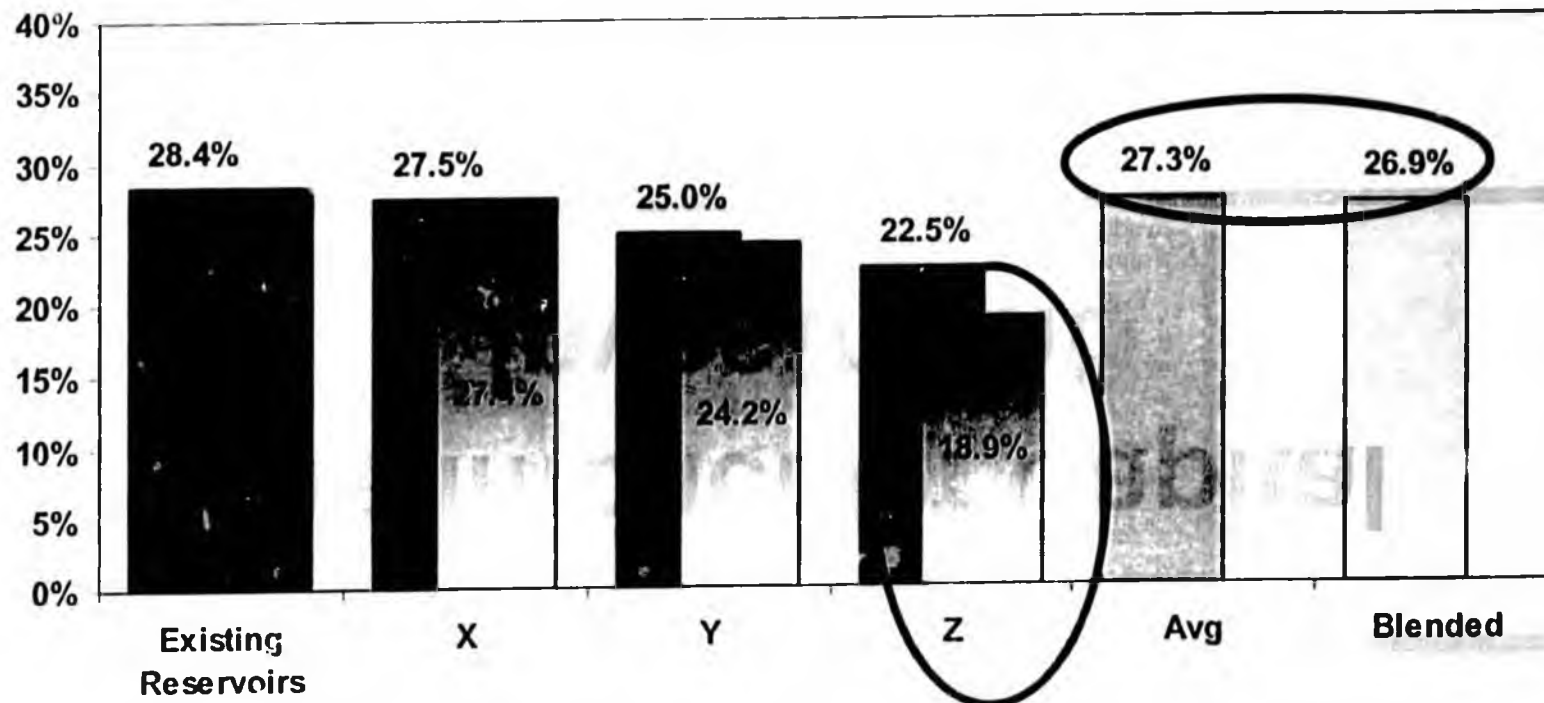


The mathematics of this reduction means that actually while Existing Reservoirs continue to pay tax at a rate of 28.4%,
The effective rate on Field X is actually 27.4%
... less than it would be if it were developed stand-alone

The Impact On The Lower Margin Fields Is More Noticeable



Tax Rate By Field Within A Company - As Affected By Portfolio Blending



The effective rate on some lower-margin fields may even be lower than the basic rate (22.5% in PPT)

This is manifested in the blended rate being lower than the weighted average rate

weighted average rate

This is manifested in the blended rate being lower than the

rate from the bond — 5.5% to 6.0%

the corporate rate and the lower average rate may even be

The Impact Of Capital Investment





Cash Flow, Not Profit

- **PPT taxes all fields at a single rate**
 - No, it taxes different fields or reservoirs based on their individual profitability
- **Is based on profit per barrel**
 - Not exactly, it is based on net cash flow per barrel after capital investment (for future production)

