

**SB**

**2001**

**(FILE 18)**

**ADMIN.**

Oil's  
not flows

The Palin-Parnell Administration presents

# ACES

*Alaska's Clear and Equitable Share*

**Senate Judiciary  
October 31, 2007**

*Last Updated: 10-31-07*

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Alaska's Clear and Equitable Share

**Comparison of Gross Based  
and Net Based Production Tax Systems**

**Pat Galvin**

**October 31, 2007**

## **Pro's and Con's of Gross Tax and Net Tax**

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### Gross Tax

- Pro's
  - More Transparent
  - Less Audit/Litigation Burden
  - Less risk to revenue projection
- Con's
  - Creates a “one size fits all” problem for varying project economics
  - Errors in assumptions can stifle investment
  - To protect project economics, may have to accept less revenue

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### Net Tax

- Pro's
  - Investment climate “self corrects” to adjust to changes in costs
  - Provides more attractive investment climate
- Con's
  - Less Transparency
  - Greater Audit/Litigation Burden
  - Errors in assumptions can reduce revenue

# Balancing Act

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Revenue

Investment  
Climate



Revenue from  
"Legacy" Fields

Exploration &  
New Field  
Development



Transparency

Economic  
Flexibility



Audit Risk

Investment  
Challenge



Incumbents

New Entrants



## **Factors to Consider**

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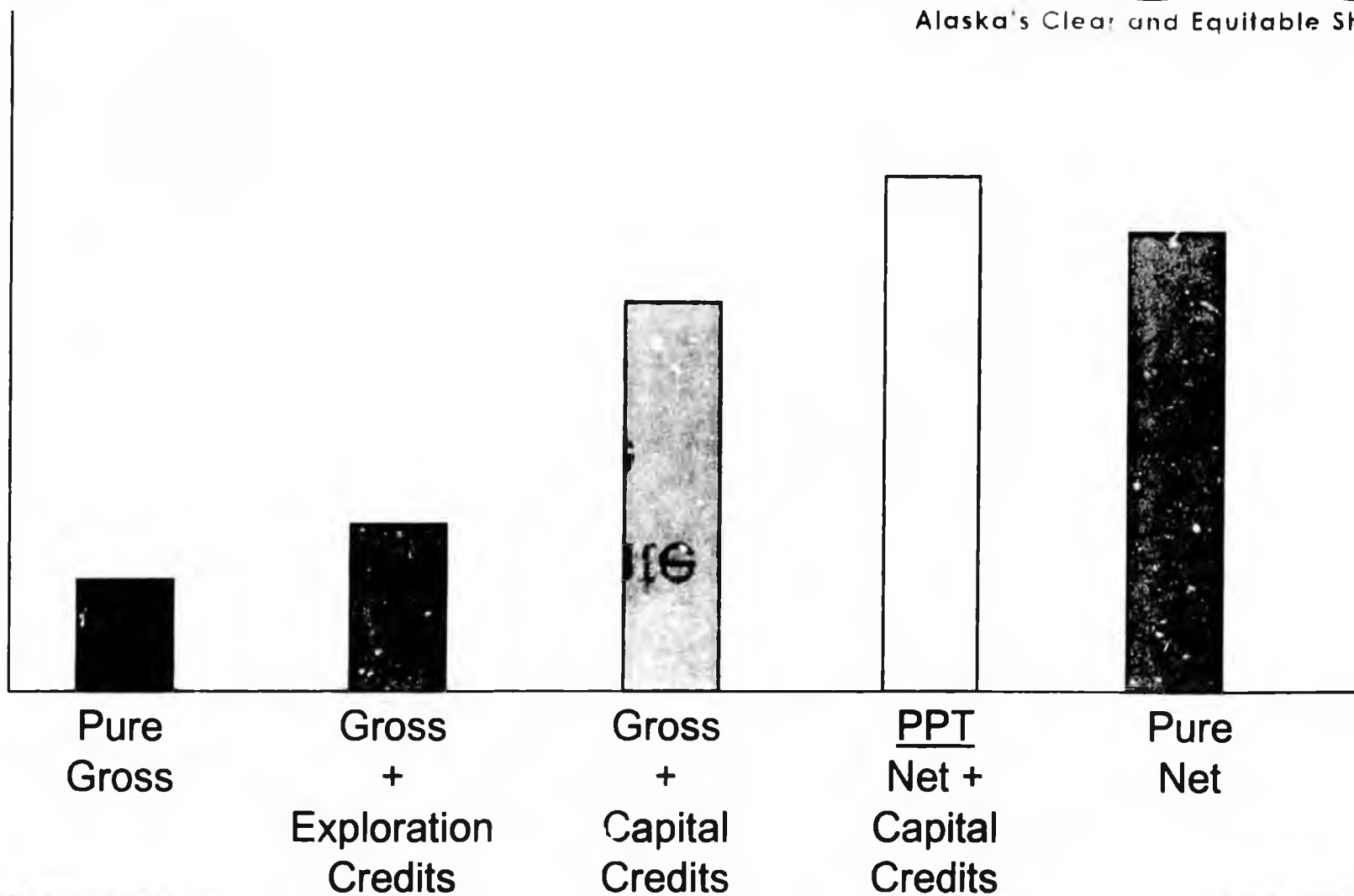


- “Audit Risk”
- Revenue to the State
- Investment Climate

# "Audit Risk"

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# "Audit Risk"

## How Do You Measure It?

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- Experience of Other Jurisdictions
  - No Record of Someone Going from Net to Gross due to frustration over "audit risk"

Double Auditors

- Similar Experiences In Alaska

- Analogous to royalty disputes?
- Net Profit Share Leases?
- Distinction between contract and tax disputes

- "Trust Factor"

- Can You Mitigate the Risk?

- Need the ACES Tools

Gross TTX  
\* Lower 48  
much of Mineral  
is privately owned  
small resource base

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Galum - Clearly the PPT - none audited  
Gov & myself were skeptical of "Pet"?

## Revenue to the State

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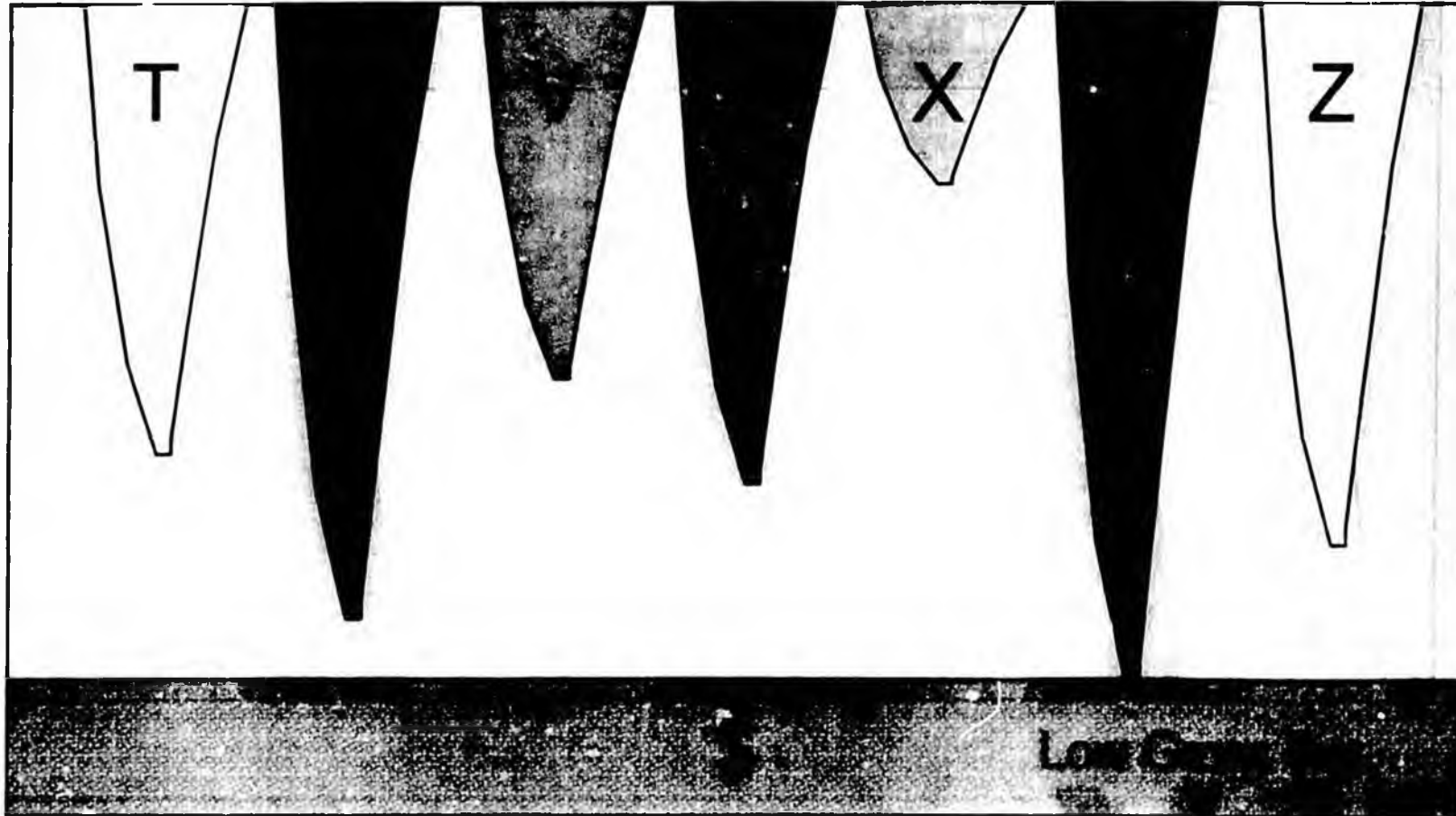


- Revenue Model with field costs and production assumptions
- Can Calibrate Any Tax System to Hit a Revenue Target
- How Sensitive is the System to Changes in Assumptions?

# Revenue vs. Investment

# ACES

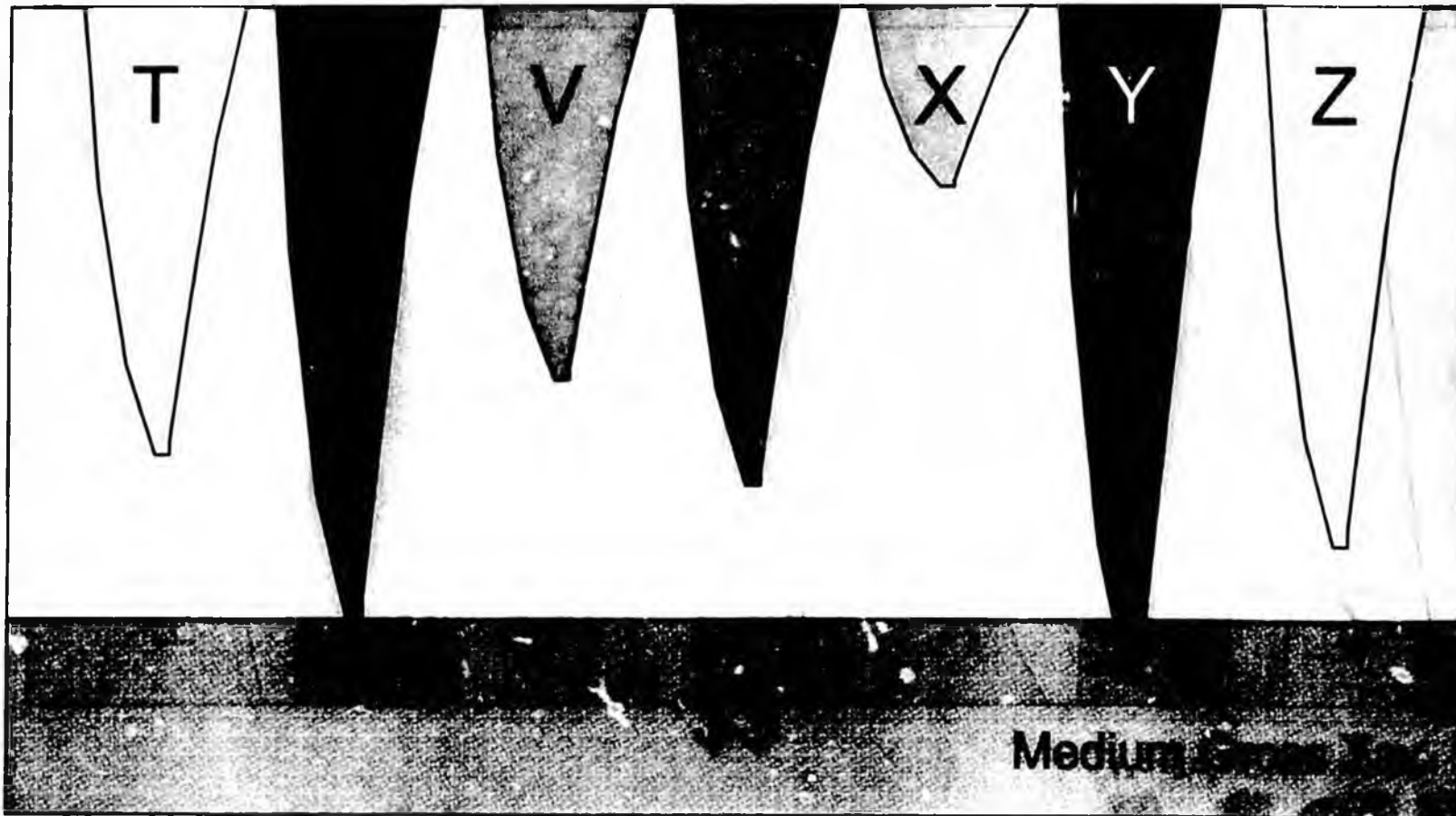
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# Revenue vs. Investment

# ACES

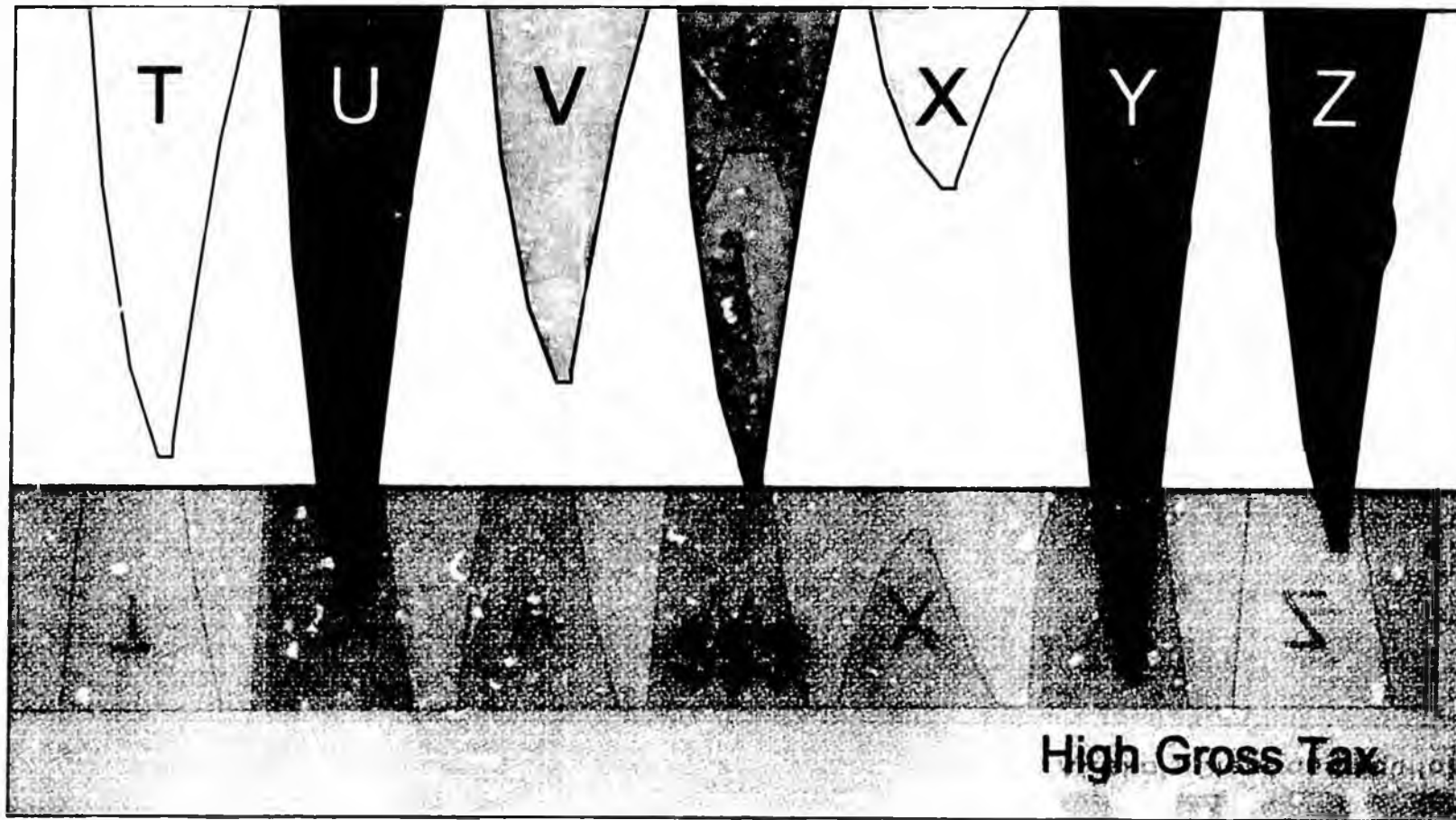
Alaska's Clear and Equitable Share



# Revenue vs. Investment

# ACES

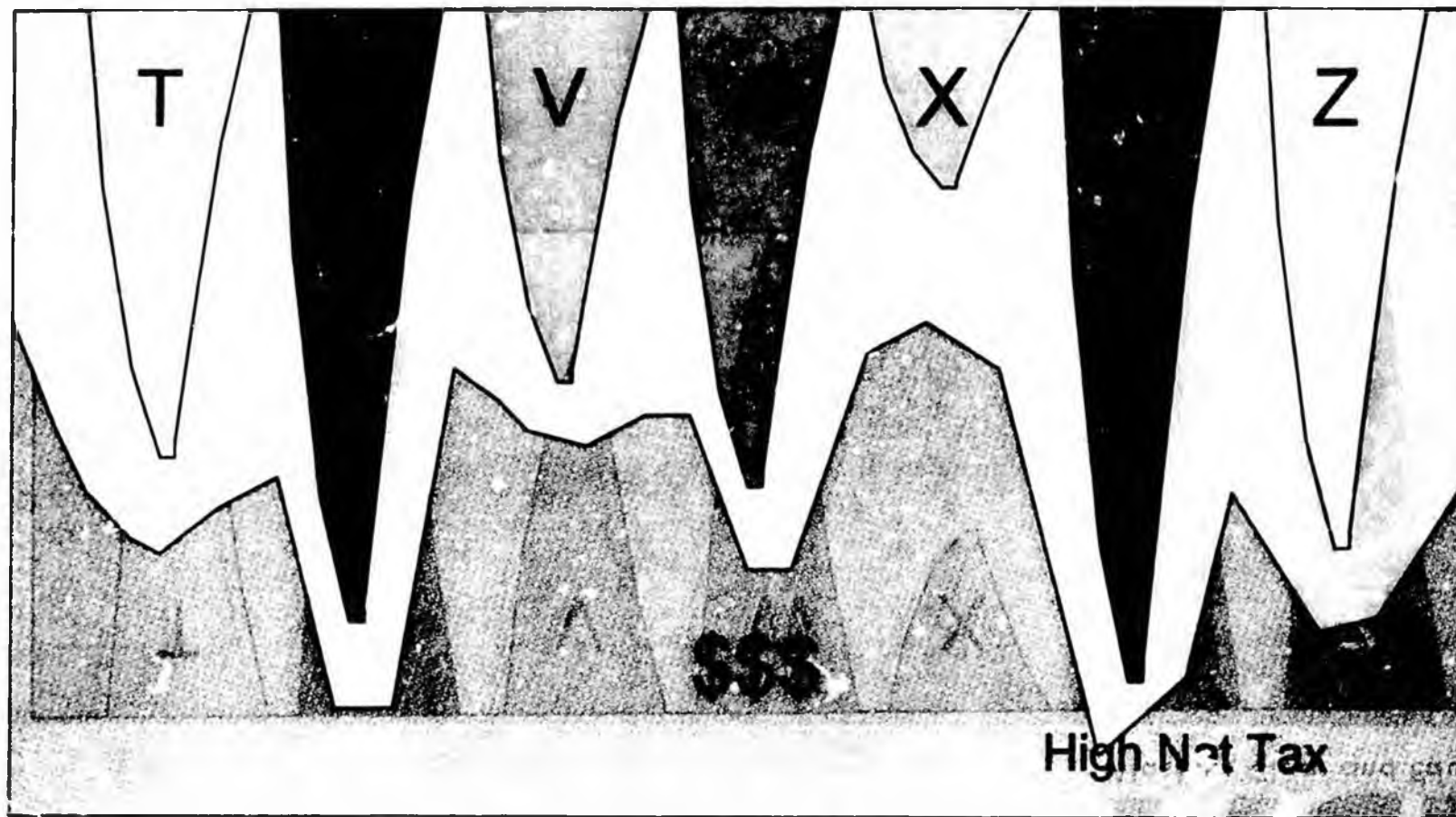
Alaska's Clear and Equitable Share



# Revenue vs. Investment

# ACES

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## Investment Climate - Tests

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- **New Fields (7 Field Models)**
    - Actual project data - costs, production profile
    - NPV, IRR, Profitability Index at prices \$30 to \$100, and discount rates of 10% and 15%
    - Sensitivity Analysis to changes in cost assumptions
  - **“Legacy” Fields**
    - Reinvestment Option analysis 3%, 6%, and 15% decline scenarios
-

Legacy ✓  
 (TAX) Others

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## New Field Tax Analysis - NPV Impact

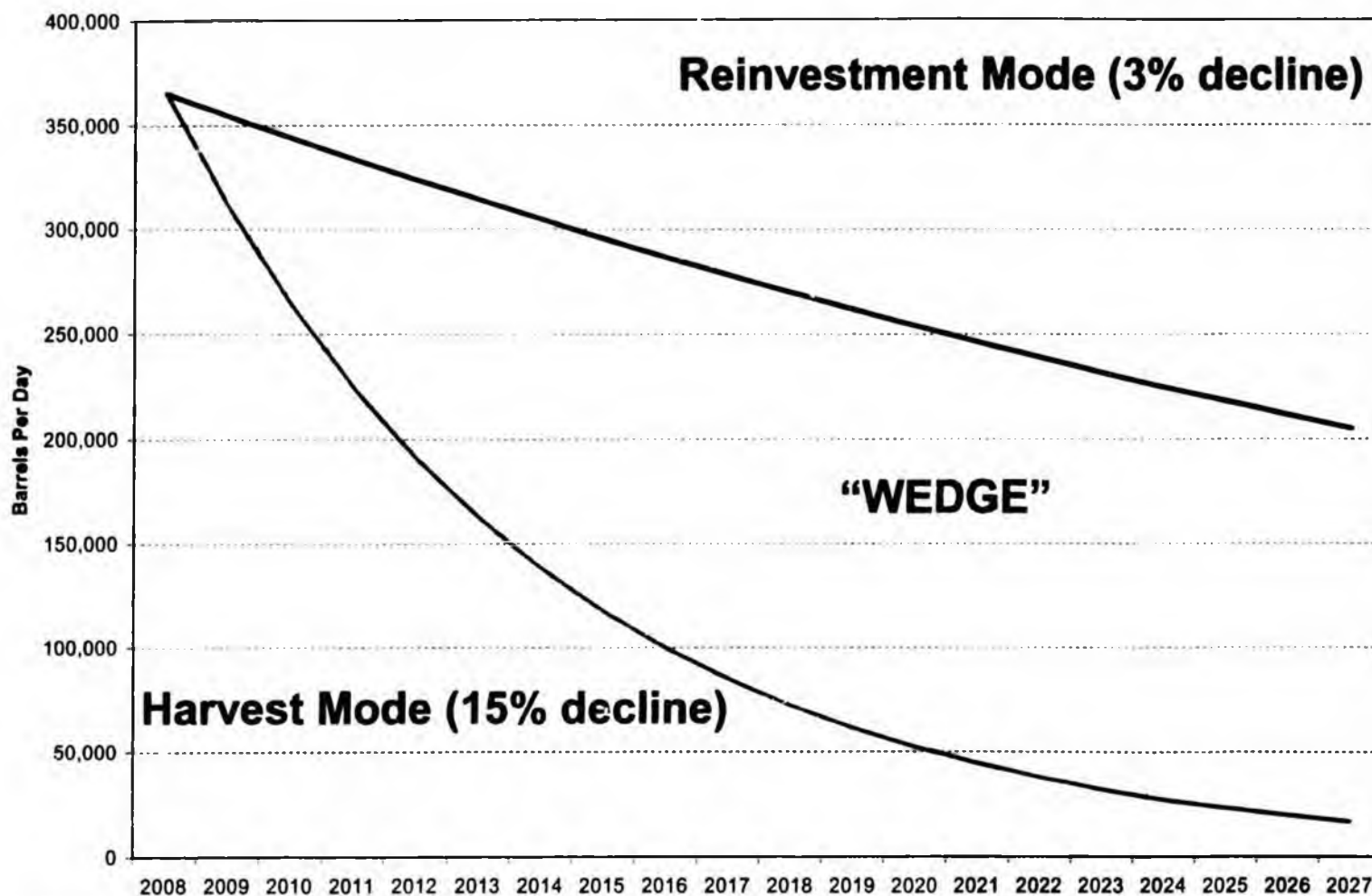
Scenario	Rate		Progressivity		Capital Investment Credit	Industry NPV @ 10% at \$40/bbl real ANS WC (mm\$)						
	Mature Fields	Other Fields	Trigger	Rate		Field A	Field B	Field C	Field D	Field E	Field F	Field G
ACES - 10% Floor	25.0%	25.0%	\$30	0.0020	20%	10	60	40	40	(500)	210	1,000
ACES - NO Floor	25.0%	25.0%	\$30	0.0020	20%	120	60	40	40	(300)	210	1,000
PPT Status Quo	22.5%	22.5%	\$40	0.0025	20%	180	50	60	10	(200)	220	1,100
High Net Tax	35.0%	22.5%	\$30	0.0030	20%	150	60	50	0	(200)	140	1,100

Scenario	Rate (All Fields)	Other Incentives	Progressivity		Capital Investment Credit	Industry NPV @ 10% at \$40/bbl real ANS WC (mm\$)						
			Trigger	Rate		Field A	Field B	Field C	Field D	Field E	Field F	Field G
Low Rate - No Credits	13%		\$40	0.0020	None	(30)	(40)	(30)	(500)	(600)	80	700
Medium rate	16%		\$40	0.0020	20%	30	0	0	(300)	(500)	130	800
Former Tax no ELF	16%		NA	NA	none	(40)	(50)	(30)	(400)	(600)	80	800
High Rate Flat Tax	19%		NA	NA	20%	20	(10)	0	(300)	(500)	130	800
Sliding Scale	Tax Table	5 Yr Holiday	NA	NA	20%	130	40	40	20	(400)	180	1,100

# Legacy Field Scenarios

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## Legacy Field Reinvestment Comparison @ \$40



	Sustain Production Mode	Harvest Mode	Difference	
Decline Rate	3% per year	15% per year		
Oil Produced (mm Barrels)	2026	854	1172	
	NPV10 (\$M)	NPV10 (\$M)	NPV Difference (\$M)	Implied Investment Decision
Net Cases:				
ACES	8235	6893	1342	Reinvest
PPT(SQ)	9176	7133	2042	Reinvest
35% tax rate	8022	6130	1892	Reinvest
Gross Cases:				
13% + no credits	6860	7207	(348)	DO NOT Reinvest
16% + no credit	6248	6889	(641)	DO NOT Reinvest
16% + 20% credit	7180	7027	152	DO NOT Reinvest
19% + no credit + no progressivity	6246	6706	(460)	DO NOT Reinvest

Assumes: 20 year horizon, OPEX+CAPEX=\$5/BOE for Harvest, \$15/BOE for Reinvestment. All cases assume 16 progressivity unless noted.

## **Investment Climate Summary**

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- Industry is more comfortable investing in a state that taxes based on net profits
- Net tax “self-adjusts” to changes in costs
- Heavy oil development is a challenge under a gross tax system
- Errors in cost assumptions under a gross tax can hamper investment climate

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