REPORT TO THE ALASKA STATE LEGISLATURE

on the

PRELIMINARY ESTIMATE OF THE FY 2008 REVENUE EFFECTS OF FOUR
CHANGES PROPOSED BY GOVERNOR SARAH PALIN TO THE OIL AND GAS
PRODUCTION TAX, AS 43.55,
ON SEPTEMBER 4, 2007 AND OCTOBER 1, 2007

Dan E. Dickinson, CPA, CMA
October 3, 2007

Executive Summary

On September 4, 2007, the Palin Administration proposed changes to Alaska's oil and
gas production tax (AS 43.55). Also handed out at that time was a chart demonstrating
estimated FY 2008 production tax revenues under different scenarios. That chart showed
that at a price level of $70 dollars a barrel, a revenue estimate under current law and cost
and volume assumptions to be roughly:

- a billion dollars higher than revenues had the ELF-based tax still been in place;
  however,
- a billion dollars lower than under current law and summer of 2006 cost and
  volume assumptions; and
- 800 million dollars lower than under the Governor's plan also using summer of
  2006 cost and volume assumptions.

On October 1, 2007, the Administration made public a work draft of a bill incorporating
these and other changes.   This paper analyzes four of the proposed changes. If
implemented for all of FY 2008, these four changes proposed by the Governor would
have large and immediate revenue impacts, and in fact account for the 800 million dollar
difference identified above:

> The tax rate would go from 22.5 to 25%. At currently predicted volumes and
> costs, that would generate a revenue increase of about 37.5 million dollars if
> oil is at $30 a barrel for the entire year and 342.5 million dollars if oil remains
> at $80 for the entire year.

> Progressivity – a mechanism that imposes an additional tax when net values
> are very high - is changed so that in most circumstances at prices greater than
> $55 dollars a barrel it will raise up to roughly 190 million more dollars a year
> than current law. However, because the Administration has opted for the
> administratively less complex method of calculating progressivity on an
> annual rather than monthly basis, in cases of short duration spikes in price the
> proposal may capture fewer dollars.

The TIE (Transitional Investment Expenditure) credits would be eliminated. Those credits allowed producers that are making both current investments, and had been making investments in the period 2000 through 2005, to "supercharge" their current investment credits from 20% to 30%. In FY 2008, eliminating TIE credits will increase revenue by about $190 million a year.

A fourth proposed change will likely have a large revenue impact in its first year but little impact thereafter. It will require capital credits to be taken over two years instead of in the year of investment. If the change were effective July 1, 2007, the State would receive a revenue boost of about 190 million dollars in FY 2008, but would notice little change thereafter.

Preliminary Estimate of Four Proposed Changes on FY 2008 Revenues
Dan E. Dickinson
October 3, 2007

Analysis

On September 4, 2007, the Palin Administration proposed 10 changes to Alaska's oil and gas production tax (AS 43.55) summarized in a 150 word handout. Also handed out at that time was a chart handout entitled "FY 2008 Production Tax Estimates." This chart showed FY 08 production tax revenues over a range of oil prices between $30 and $70 using the four following sets of assumptions:

> (a) Current law and production and cost assumptions;
> (b) Current law using production and cost assumptions from the summer of 2006;
> (c) The Governor's proposed changes; and,
> (d) The ELF-based tax as though it were still in place.

At a price level of $70 dollars a barrel[1], the revenue estimate shown under current law and assumptions is roughly:

- A billion dollars higher than revenues had the ELF-based tax still been in place; however,
- A billion dollars lower than under current law and summer of 2006 cost and volume assumptions; and
- 800 million dollars lower than under the Governor's plan also using summer of 2006 cost and volume assumptions.

On October 1, 2007, the Administration made a work draft of a bill public. This paper analyzes four of the proposed changes from that bill.   Using a very simple one page model (Attachment One), the Governor's proposed changes are compared with existing law using the same cost and volume assumptions. If implemented for all of FY 2008, these four changes proposed by the Governor have large and immediate revenue impacts, and, in fact, account for the 800 million dollar difference identified above between current law and the proposal. The four changes are:

> A change in tax rate on net profits from 22.5% to 25%;
> Two of the three changes proposed for the method of calculating progressivity;
> Elimination of the TIE credit, and
> Requiring taxpayers to take investment credits over two years.

On September 4, 2007, when the chart was released the Commissioner of DOR stated that he did not know when the bill would become effective. However the analysis that

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[1] Although on September 4, 2007, the ANS price was in the mid seventies, according to archival price data at DOR's website, it had been 70.76 as recently as August 22 (Site accessed October 2, 2007:
http://www.tax.state.ak.us/programs/oil/prices/monthlydata/2007/Aug07.xls

best fits the September 4 handouts, and that is presented in this paper is driven by a July 1, 2007, effective date. The work draft of the bill, however, has proposed a January 1, 2008, effective date. Using the effective dates in the Governor's proposed legislation would cut the 800 million difference for FY 2008 roughly in half to $400 million.

"25% Tax Rate on Net Profits"

AS 43.55.011(e) levies a tax of 22.5% on the "production tax value of the taxable oil and gas." The proposed change found in sections 15 and 17 of the October 1, 2007, work draft modifies AS 43.55.011(e) and (g) to up that figure by an additional 2.5% to 25%. The effect of this change on 2008 revenues is modeled on the table below.

Simple Model of FY 2008 Production Tax Revenue: Base Rate

Price Scenarios on Sept 4 Handout	Annual Volumes (w/o royalty)	Total Destination Value of non Royalty Barrels	Less Downstream costs from RSB	Less Upstream costs (capex and opex) from RSB	Resulting Production Tax Value	Tax Rate	Base Tax Calculation at 22.5% and 25% and difference
$/bbl	MM bbls	MM $	MM $	MM $	MM $	%	MM $
A	B	C=	D	E	F=	G	H=
		(A * B)			(C+D+E)		(F*G)
Under Current Law							
			7.22 per bbl				
30	244	7,320	(1,762)	(4,058)	1,500	22.5%	337.6
40	244	9,760	(1,762)	(4,058)	3,940	22.5%	886.6
50	244	12,200	(1,762)	(4,058)	6,380	22.5%	1,435.6
60	244	14,640	(1,762)	(4,058)	8,820	22.5%	1,984.6
70	244	17,080	(1,762)	(4,058)	11,260	22.5%	2,533.6
80	244	19,520	(1,762)	(4,058)	13,701	22.5%	3,082.6
Under Changes Indicated in Sept 4th handouts							
30						25.0%	375.1
40						25.0%	985.1
50						25.0%	1,595.1
60						25.0%	2,205.1
70						25.0%	2,815.1
80						25.0%	3,425.1
Incremental Change: Proposal less Current Law							
30							37.5
40							98.5
50							159.5
60							220.5
70							281.5
80							342.5

Preliminary Estimate of Four Proposed Changes on FY 2008 Revenues
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The format of this table will be repeated several times in this report excerpting columns from the entire table which can be found as Attachment One. The table is divided into three horizontal sections. Within each section the analysis is shown at prices that range from $20 a barrel up to the today's price of $80. (Note – when comparisons are made to the Governor's chart, the analysis uses the Administration's assumptions and only goes up to $70.) The first section is based on current law. Below it, the second section is based on the Governor's September 4, 2007, proposals. Finally, the third section is just the difference between the first two sections – the incremental dollar effect of implementing the change.

Columns A through F are identical whether under current law or the proposed changes.[2] The first, column A, is the destination value. The next column has taxable barrels based on the volumes found in the Department of Revenue's spring 2007 Revenue Sources Book (RSB).   Column C is the product of the first two. In the next two columns, costs also found in the RSB are deducted. In column D, downstream costs are quoted at $7.22 a barrel, which must be multiplied by volumes, while upstream costs are given as total dollars in column E. Finally, costs are subtracted to arrive at the "production tax value" shown in column F.

Starting with column G, the section under current law and the section describing the effect of the proposals are different. Current law multiplies "production tax value" times 22.5%, while in the second section the Governor's proposed rate of 25% is used.   The "Incremental Change" portion of Column H shows the annual difference this proposed change would make at this year's production levels and it ranges from $37 million at the $30 per barrel price level to just under 10 times that or roughly $342.5 million dollars at the $80 price level seen today.

"Progressive Feature that Kicks In at $30 Net Value (annual) and rises at Two-tenths of a Percent per Dollar"

This proposal incorporates three changes to the progressivity feature of which two are incorporated into this model. Under current law, AS 43.55.011(g) and (h), the progressive feature is calculated as an additional tax of two and a half tenths of a percent for every dollar per barrel of net value over the $40 price index starting point. This proposal, found in sections 17 and 18 of the October 1 work draft, suggests the progressive feature should be calculated as an additional tax of two tenths of a percent for every dollar per barrel of net value over a $30 price index starting point.

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[2] That is, they are identical in this simple model. The Governor has also proposed some smaller changes described below that would affect the total deductible costs as well; however, they have not been modeled here.
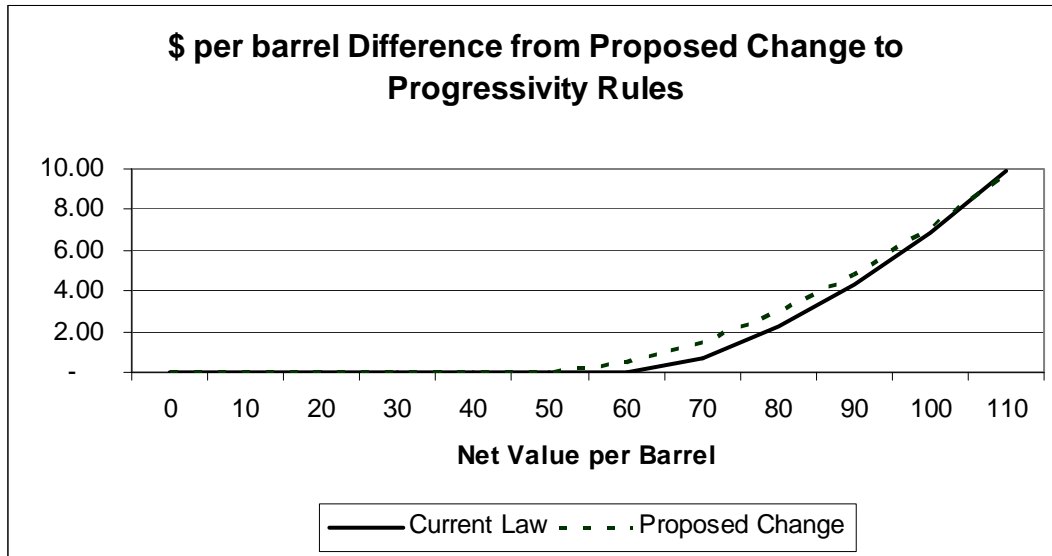
	Current Law	Proposed Change
Price Index starting point	$40 per barrel	$30 per barrel
Rate per $ in Price Index	.25%	.20%

Put more plainly, under the proposal, progressivity will start at lower per barrel values
than under current law. However, once it starts, progressivity will rise more slowly.
Until the net production tax value reaches $80 dollars a barrel, the Administration's
suggested change to these two parameters will consistently produce more progressivity
dollars than the current statute. At a net of $80, the suggested changes and current law
will yield the same result.[3] At net values above $80, the formula in current law will
produce more progressivity dollars.[4] However, under both the current statute and the
Governor's proposal, the total tax rate progressivity is capped at 25% - which occurs at
an even higher price.

As might be expected at today's high prices, changes to progressivity are an important
part of calculating the overall tax burden and the difference between current law and this
proposal. The table on the next page illustrates the dollar effect of these two changes in
FY 2008.

This table has the same format as the table described on pages 4 and 5 above -- the table
is divided into three horizontal sections for current law, the September 4, 2007,
proposals, and, the difference between those two. Within each section the analysis is

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[3] Because (80 - 30)*.002 = (80 – 40) *.0025 for those who care about the algebra.
[4] To translate $80 net value into WC market prices total RSB costs of $23.85 per barrel
need to be added meaning the cross over point would be about $103.85, roughly 20%
higher than current prices.

shown at prices that range from $20 a barrel up to the today's price of $80. The computations to reach column F are not reproduced.

Column I converts the column F production tax value back to dollars per barrel by dividing column F dollars by the barrels in column B. Column J shows the starting point for the Price Index as $40 under current law and $30 under the Governor's proposal. In Column K, the price index is calculated by subtracting J from I. In Column L, the current and proposed progressivity rates per dollar of price factor are shown as .0025% and .002% respectively. In column M, these are multiplied by the price index to yield the new progressivity rate. Finally, in column N, the dollars of progressivity are calculated by multiplying the column M rate by the same base that was subject to taxation found in column F.

Simple Model of FY 2008 Production Tax Revenue: Progressivity

Price Scenarios on Sept 4 Handout	Annual Volumes (w/o royalty)	MEMO: Resulting Production Tax Value	Per Barrel Production Tax Value	Adjustment for Price Index Calculation	Price Index	Progressivity Rate per Price Index Dollar	Resulting progressivity rate	Progressivity Tax = Rate Times Value
$/bbl	MM bbls	MM $	$/bbl	$/bbl	$/bbl	%	%	MM $
A	B	F= (C+D+E)	I= (F/B)	J	K= (I-J)	L	M (L*K)	N= (M*F)
Under Current Law								
30	244	1,500	$ 6.15	40.0				
40	244	3,940	$ 16.15	40.0				
50	244	6,380	$ 26.15	40.0				
60	244	8,820	$ 36.15	40.0				
70	244	11,260	$ 46.15	40.0	$ 6.15	0.25%	1.54%	173.1
80	244	13,701	$ 56.15	40.0	$ 16.15	0.25%	4.04%	553.1
Under Changes Indicated in Sept 4th handouts								
30			$ 6.15	30.0				
40			$ 16.15	30.0				
50			$ 26.15	30.0				
60			$ 36.15	30.0	$ 6.15	0.20%	1.23%	108.5
70			$ 46.15	30.0	$ 16.15	0.20%	3.23%	363.7
80			$ 56.15	30.0	$ 26.15	0.20%	5.23%	716.5
Incremental Change: Proposal less Current Law								
30								
40								
50								
60					(10.0)	$ 6.15		1.23%	108.5
70					(10.0)	$ 10.00		1.69%	190.6
80					(10.0)	$ 10.00		1.19%	163.4

When just these two elements are considered, the Governor's proposal can be seen to yield between $108.5 and $190.6 million more than the current rules at prices of $60 or above. (With this set of inputs the maximum difference is close to $190.6 million.)

However, what these two elements take in higher revenues, a third part of this proposed change may more than give back. To many people in the Legislature in 2006, the purpose of the progressivity was to capture a premium when there were price spikes. Therefore, current law requires the analysis to be done on a monthly basis. (Although now as daily prices hover around the $80 per barrel level it may seem quaint; but in the summer of 2006 as the current law was being crafted, prices were surpassing $70 a barrel for the first time and to many that seemed like a spike.) The Administration's proposal would be administratively simpler requiring only an annual analysis. However, this change might reduce taxes by hundreds of millions of dollars.

Consider the price spike preceding the first Gulf War when prices doubled between July and September 1991, and then soon returned to where they had been. The following table illustrates what might happen should FY 2008 have just such a spike in it:

Comparing Annual and Monthly analysis of FY 2008 with hypothetical spike

A	US West Coast Price/ bbl	Per Barrel Total Costs	Per Barrel Production Tax Value	Adjustment Converting Production Tax Value to Price Index	Price Index	Rate per Dollar of Price Factor	Incre- mental Progres- sivity %	Volumes (millions of bbls)	Progres- sivity Tax (millions of dollars)
	$/bbl	$/bbl	$/bbl	$/bbl	$/bbl	%	%	MM bbls	MM $
A	B	C	D= (B+C)	E	F= (D+E)	G	H= (F*G)	I	J= (D*H*I)
Monthly Analysis, $40 Adjustment and .0025% Parameter under Current Law									
Jul	51.43	(23.85)	27.58	(40.00)	-	0.25%	0.00%	20.7	-
Aug	51.43	(23.85)	27.58	(40.00)	-	0.25%	0.00%	20.7	-
Sep	51.43	(23.85)	27.58	(40.00)	-	0.25%	0.00%	20.1	-
Oct	51.43	(23.85)	27.58	(40.00)	-	0.25%	0.00%	20.7	-
Nov	51.43	(23.85)	27.58	(40.00)	-	0.25%	0.00%	20.1	-
Dec	51.43	(23.85)	27.58	(40.00)	-	0.25%	0.00%	20.7	-
Jan	77.15	(23.85)	53.29	(40.00)	13.29	0.25%	3.32%	20.7	36.7
Feb	102.86	(23.85)	79.01	(40.00)	39.01	0.25%	9.75%	18.7	144.2
Mar	77.15	(23.85)	53.29	(40.00)	13.29	0.25%	3.32%	20.7	36.7
Apr	51.43	(23.85)	27.58	(40.00)	-	0.25%	0.00%	20.1	-
May	51.43	(23.85)	27.58	(40.00)	-	0.25%	0.00%	20.7	-
Jun	51.43	(23.85)	27.58	(40.00)	-	0.25%	0.00%	20.1	-
								244.0	217.6
Yearly Analysis, $30 Adjustment and .002% Parameter, as Proposed									
Yr	60.00	(23.85)	36.15	(30.00)	6.15	0.20%	1.23%	244.0	108.5

In the simple model presented on page 7, no progressivity dollars were generated under current law at the $60 scenario level. Implicit in the model is that the price stays flat at $60 all year. But, in the model presented on page 8, instead of a flat $60, the price hovers around $51.43 for most of the year except for a three month spike[5]. In this hypothetical spike, like in 1991, prices will double over two months and then fall back. The $51.43 was chosen so that the year's price would average out to $60 -- and the point would be dramatically illustrated. Under this scenario, the current law would generate $217.6 million of progressivity over the year – just about twice what would be generated under the rules the Governor is proposing. (The $108.5 figure under the Administration's plan can be found in both the tables on page 7 and 8.)

Please note the table on page 8 is not a forecast but an illustration!!! If prices stay relatively flat, incorporating the kind of variation seen in most 12 month periods, the Governor's proposal will produce more progressivity dollars than current law. However, it will not necessarily catch a single peak or spike. Incidentally, as might be expected, if the Governor's two suggested parameter changes are combined with a monthly analysis, then a spike such as that illustrated in the table on page 8 brings in significantly more revenue than current law.

"Eliminates the Transitional Investment Expenditures (TIE) Credits"

The Transitional Investment Expenditures (TIE) credit, AS 43.55.023 (i), was transformed in the Legislative process. As originally introduced by the Murkowski Administration, it permitted capital costs incurred in the prior five years to be used as additional capital credits through 2013 with certain restrictions. The Legislature transformed the idea and required new matching investment before the TIE credits would be allowed. If a producer were in harvest mode and not making any new investments, the TIE would be of no use, whereas a producer that increased its investment by about 40% could take full advantage of the TIE credit. The law allowed certain producers with a good history of investment to "supercharge" their new investments made between 2006 and 2012 and to boost their credit for that investment by an additional 10% from 20% to an effective rate of 30%.   To take advantage of this 10% credit, a producer had to have two things – prior investment and current investment. The credit would have expired in 2013 on its own. The Palin Administration, in section 63 of the October 1, 2007, work draft, proposes ending it sooner – December 31, 2007 -- which means that TIE credits would still be allowed for half of FY 2008. However, for simple modeling purposes to best match the Administration's September 4, 2007, model, the elimination of the TIE credit is shown for the entire year.

The simple model incorporates the following assumptions. In its August 3, 2007, Petroleum Profits Tax (PPT) Implementation Status Report, the DOR estimates that $1.9

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[5] Of all the places in the future to place the spoke, February was chosen with only 29 days of production in FY 2008 to model a conservative scenario.

billion in capital costs will be reported for FY 2008. The model further assumed that in the second year of the TIE program, every dollar invested in FY 2008 still has a match from prior years' investments – that is, all the investment was supercharged from 20% to 30%. Thus, current law allows, and the Governor's proposal will disallow, 10% of $1,900 million or $190 million a year regardless of the price of oil. In the table below, column E is a memo column that shows total upstream costs, columns H and N were calculated in previous tables, and column O sums those results together to generate total tax before credits. In column P, under current law, a credit of 10% of 1.9 billion dollars is taken; no credit is allowed under the Governor's proposal. The final column shows the effect of applying the credit in column P against the tax in column O.

Simple Model of FY 2008 Production Tax Revenue: TIE						
Price Scenarios on Sept 4 Handout	MEMO: Less Upstream costs (capex and opex) from RSB	MEMO: Base Tax Calculation at 22.5% and 25% and difference	MEMO: Progressivity Dollars	Total Taxes before credits	TIE Credits	Taxes Due after application of TIE Credit
$/bbl	MM $	MM $	MM $	MM $	MM $	MM $
A	E	H	N	O= (H+N)	P	
Under Current Law						
30	(4,058.0)	337.6		337.6	(190.0)	147.6
40	(4,058.0)	886.6		886.6	(190.0)	696.6
50	(4,058.0)	1,435.6		1,435.6	(190.0)	1,245.6
60	(4,058.0)	1,984.6		1,984.6	(190.0)	1,794.6
70	(4,058.0)	2,533.6	173.1	2,706.7	(190.0)	2,516.7
80	(4,058.0)	3,082.6	553.1	3,635.7	(190.0)	3,445.7
Under Changes Indicated in Sept 4th handouts						
30		375.1		375.1		375.1
40		985.1		985.1		985.1
50		1,595.1		1,595.1		1,595.1
60		2,205.1	108.5	2,313.6		2,313.6
70		2,815.1	363.7	3,178.8		3,178.8
80		3,425.1	716.5	4,141.6		4,141.6
Incremental Change: Proposal less Current Law						
30		37.5		37.5	190.0	227.5
40		98.5		98.5	190.0	288.5
50		159.5		159.5	190.0	349.5
60		220.5	108.5	329.0	190.0	519.0
70		281.5	190.6	472.1	190.0	662.1
80		342.5	163.4	505.9	190.0	695.9

"Requires Capital Expenditure Costs to be Taken as Credits over Two Years Rather than Immediately"

Under current law, AS 43.55.023 (a), capital investment credits may be taken in the year the investment is made. The proposal, found in section 26 of the October 1, 2007, work draft, will require that for a credit generated in year one, only half can be applied in year one and the rest in year two. In DOR Commissioner Galvin's oral presentation September 4, 2007, he stressed that this change was intended to make annual revenues more stable and predictable. There will, however, be immediate one-year revenue implications and the model below assumes the effective date of the change in the law would be timed so as to maximize the revenue effect on FY 2008.

However, this large revenue effect will essentially be limited to one year. In the next year, the total credits allowed will be half of that year's investment and half of the investment made the year after that and so forth each year forward. If investment stays roughly constant, in subsequent years there will be no revenue effect. Thus from the point of view of the State, this appears to create first year savings only. From the taxpayers' point of view, the value of the credits essentially falls by one half year's time value of money.

In the simple model on page 12, columns E, H, N & O are as they were in the TIE table. In column Q, FY 2008 current law will allow 20% of $1,900 or $380 million a year. The Governor's proposal will disallow half of that, 10% of $1,900 or $190 million, and allow the other half. Again, this is regardless of the price of oil. In the final column of the table, this amount is subtracted from the taxes derived in the prior two sections.

This model assumes that the tax and forecasting are on the same basis; but, the world is not that simple. The tax system is based on the calendar year, while the fiscal year (FY) runs from July 1 to June 30. Thus the effect of this change on fiscal year revenues will be split between two fiscal years (FY 2008 and 2009) but thereafter will have little revenue effect.

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Simple Model of FY 2008 Production Tax Revenue: Cap Credit

Price Scenarios on Sept 4 Handout	MEMO: Less Upstream costs (capex and opex) from RSB	MEMO: Base Tax Calculation at 22.5% and 25% and difference	MEMO: Progressivity Dollars	Total Taxes before credits	First Year Capital Investment Credit (full or half)	Taxes Due after application of Capital Investment Credit
$/bbl	MM $	MM $	MM $	MM $	MM $	MM $
A	E	H	N	O= (H+N)	Q	

Under Current Law

					1,900.0	
30	(4,058.0)	337.6		337.6	(380.0)	(42.4)
40	(4,058.0)	886.6		886.6	(380.0)	506.6
50	(4,058.0)	1,435.6		1,435.6	(380.0)	1,055.6
60	(4,058.0)	1,984.6		1,984.6	(380.0)	1,604.6
70	(4,058.0)	2,533.6	173.1	2,706.7	(380.0)	2,326.7
80	(4,058.0)	3,082.6	553.1	3,635.7	(380.0)	3,255.7

Under Changes Indicated in Sept 4th handouts

30		375.1		375.1	(190.0)	185.1
40		985.1		985.1	(190.0)	795.1
50		1,595.1		1,595.1	(190.0)	1,405.1
60		2,205.1	108.5	2,313.6	(190.0)	2,123.6
70		2,815.1	363.7	3,178.8	(190.0)	2,988.8
80		3,425.1	716.5	4,141.6	(190.0)	3,951.6

Incremental Change: Proposal less Current Law

30		37.5		37.5	190.0	227.5
40		98.5		98.5	190.0	288.5
50		159.5		159.5	190.0	349.5
60		220.5	108.5	329.0	190.0	519.0
70		281.5	190.6	472.1	190.0	662.1
80		342.5	163.4	505.9	190.0	695.9

The table on the next page sums up the results of the four tables presented previously to show the amount of revenue, and revenue differences, accounted for by this simplistic accounting. Column H and N are summed in column O to show total tax before credits. Columns P and Q are the two credits discussed; and, the final result of applying the credits is seen in Column R.

To determine the Administration's estimates under current law and under the Governor's proposal, figures were simply extrapolated off the September 4, 2007, handout table and these are shown in column S. The sole purpose of making this comparison is to suggest that simplistic models of the four items yield most, but not all, of the revenue differences.

Simple Models of FY 2008 Production Tax Revenue: Summary

Dollar figures in millions (except when per barrel)

Price Scenarios on Sept 4 Handout	Base Tax Calculation at 22.5% and 25% and difference	Progressivity Tax = Rate times value	Total Tax before credits	TIE Credits (Transitional Investment Expenditures)	Capital Costs * 20% or .10%	Tax net of credits	Tax per Price Scenarios on Sept 4 Handout	Unaccounted for in this simple model	Unaccounted for in this simple model (%)
$/bbl	MM $	MM $	MM $	MM $	MM $	MM $	MM $	MM $	%
A	H= (F*G)	N= (M*F)	O= (H+N)	P= (Q/2)	Q=	R= (O+P+Q)	S	T (S-R)	U= (T/S)

Under Current Law   Total Cost: 1,900.0

A	H	N	O	P	Q	R	S	T	U
30	337.6		337.6	(190.0)	(380.0)	-	-		
40	886.6		886.6	(190.0)	(380.0)	316.6	200	(116.6)	-58%
50	1,435.6		1,435.6	(190.0)	(380.0)	865.6	700	(165.6)	-24%
60	1,984.6		1,984.6	(190.0)	(380.0)	1,414.6	1,300	(114.6)	-9%
70	2,533.6	173.1	2,706.7	(190.0)	(380.0)	2,136.7	2,000	(136.7)	-7%
80	3,082.6	553.1	3,635.7	(190.0)	(380.0)	3,065.7			

Under Changes indicated in Sept 4th Handouts

A	H	N	O	P	Q	R	S	T	U
30	375.1		375.1		(190.0)	185.1	200	14.9	7%
40	985.1		985.1		(190.0)	795.1	800	4.9	1%
50	1,595.1		1,595.1		(190.0)	1,405.1	1,300	(105.1)	-8%
60	2,205.1	108.5	2,313.6		(190.0)	2,123.6	2,000	(123.6)	-6%
70	2,815.1	363.7	3,178.8		(190.0)	2,988.8	2,800	(88.8)	-3%
80	3,425.1	716.5	4,141.6		(190.0)	3,951.6			

Incremental Change: Proposal less Current Law

A	H	N	O	P	Q	R	S	T	U
30	37.5		37.5	190.0	190.0	185.1	200	14.9	7%
40	98.5		98.5	190.0	190.0	478.5	600	121.5	20%
50	159.5		159.5	190.0	190.0	539.5	600	60.5	10%
60	220.5	108.5	329.0	190.0	190.0	709.0	700	(9.0)	-1%
70	281.5	190.6	472.1	190.0	190.0	852.1	800	47.9	5%
80	342.5	163.4	505.9	190.0	190.0	885.9			

There are many other bells and whistles in the existing law, and their effect on individual taxpayers, or even on the totals, should not be trivialized. However, these numbers suggest, at least at this simple level of analysis, that the four items quantified in this report account for a great deal of the FY 2008 revenue change the Administration suggests will flow from their changes.

Attachment One: Simplistic Revenue Model

Preliminary Estimate of Four Proposed Changes on FY 2008 Revenues
Dan E. Dickinson
October 3, 2007

General Calculation:
A: The 5 price scenarios shown in the September 4, 2007, handouts
B: Annual taxable volumes taken from the RSB, where the forecast is for 764,000 barrels a day. This is multiplied by 365 to convert to an annual number and .875 to remove royalty barrels (estimated at 12.5%) to yield 244 million taxable barrels a year.
C: The total value (of non royalty barrels) at destination is the product of price multiplied by taxable volume.
D: The estimate of 7.22 for downstream costs for FY 2008 is taken from the RSB, Table B-2b "Nominal Netback Costs- Forecast." This is multiplied times volumes for a total downstream cost of $1.762 billion.
E: Upstream costs are listed at page 16 of the RSB executive summary as $4,058.3 million.
F: The resulting production tax value is calculated at each price level by subtracting costs from destination value.

At this point, every calculation is done under existing law, then in accordance with the changes in the September 4, 2007, handouts, and, finally, the former is subtracted from the latter.

Base Rate:
G: Current law at 22.5% or proposal at 25%
H: Production tax value is multiplied by either 22.5% or 25%

Progressivity:
I: The Production Tax Value is divided through by taxable barrels to generate a per barrel value (Note: same calculation for existing law and proposed changes.)
J: Used to derive the Price Index Calculation. Either $40 or $30.
K: The Price Index is calculated where the per barrel value less the factor is positive.
L: The progressivity rate of .0025 or .002 per dollar of Price Index.
M: Price Index times progressivity rate.
N: This rate is then multiplied by the same Production Tax Value (as for the base rate.)
O. The total tax before credits is the sum of the base rate and the progressivity.
P. The TIE is calculated as 10% of the capital investments or as zero.
Q. Capital Investment credit calculated as 10 or 20% of capital investment (from DOR Petroleum Profits Tax (PPT) Implementation Report (August 3, 2007)
R. The two credits are then subtracted from the tax to arrive at the tax net of credits.
S. Tax extrapolated from the DOR handouts, rounded to the nearest 100 million dollars.
T. The difference between the DOR model and my simple build-up is the amount not accounted by the simple build-up.
U. This difference is also measured as a percent.

Preliminary Estimate of Four Proposed Changes on FY 2008 Revenues
Dan E. Dickinson
October 3, 2007

Simple Model of FY 2008 Production Tax Revenue to match Administrations Sept 4th Handouts:

			Base Tax				Progressivity								Credits					
A Price Scenarios on Sept 4 Handout	B Annual Volumes (w/o royalty)	C Total Destination Value of non Royalty Barrels	D Less Downstream costs from RSB	E Less Upstream costs (capex and opex) from RSB	F Resulting Production Tax Value	G Tax Rate	H Base Tax Calculation at 22.5% and 25% and difference	I Per Barrel Production Tax Value	J Adjustment for Price Index Calculation	K Price Index	L Progressivity Rate per Price Index Dollar	M Resulting progressivity rate	N Progressivity Tax = Rate times value	O Total Tax before credits	P TIE Credits (Transitional Investment Expenditures)	Q Capital Costs * 20% or .10%	R Tax net of credits	S Tax per Price Scenarios on Sept 4 Handout	T Unaccounted for in this simple model	U Unaccounted for in this simple model
$/bbl	MM bbls	MM $	MM $	MM $	MM $	%	MM $	$/bbl	$/bbl	$/bbl	%	%	MM $	MM $	MM $	MM $	MM $	MM $	MM $	%
A	B	C=(A * B)	D	E	F=(C+D+E)	G	H=(F*G)	I=(F/B)	J	K=(I-J)	L	M=(K*L)	N=(M*F)	O=(H+N)	P=(Q/2)	Q	R=(O+P+Q)	S	T=(S-R)	U=(T/S)

Under Current Law

Per bbl: (7.22) — Total Cost: 1,900.0

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
30	244	7,320	(1,762)	(4,058)	1,500	22.5%	337.6	6.15	40.00					337.6	(190.0)	(380.0)	-	-		
40	244	9,760	(1,762)	(4,058)	3,940	22.5%	886.6	16.15	40.00					886.6	(190.0)	(380.0)	316.6	200	(116.6)	-58%
50	244	12,200	(1,762)	(4,058)	6,380	22.5%	1,435.6	26.15	40.00					1,435.6	(190.0)	(380.0)	865.6	700	(165.6)	-24%
60	244	14,640	(1,762)	(4,058)	8,820	22.5%	1,984.6	36.15	40.00					1,984.6	(190.0)	(380.0)	1,414.6	1,300	(114.6)	-9%
70	244	17,080	(1,762)	(4,058)	11,260	22.5%	2,533.6	46.15	40.00	6.15	0.25%	1.54%	173.1	2,706.7	(190.0)	(380.0)	2,136.7	2,000	(136.7)	-7%
80	244	19,520	(1,762)	(4,058)	13,701	22.5%	3,082.6	56.15	40.00	16.15	0.25%	4.04%	553.1	3,635.7	(190.0)	(380.0)	3,065.7			

Under Changes indicated in Sept 4th Handouts

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
30						25.0%	375.1	6.15	30.00					375.1	(190.0)		185.1	200	14.9	7%
40						25.0%	985.1	16.15	30.00					985.1	(190.0)		795.1	800	4.9	1%
50						25.0%	1,595.1	26.15	30.00					1,595.1	(190.0)		1,405.1	1,300	(105.1)	-8%
60						25.0%	2,205.1	36.15	30.00	6.15	0.20%	1.23%	108.5	2,313.6	(190.0)		2,123.6	2,000	(123.6)	-6%
70						25.0%	2,815.1	46.15	30.00	16.15	0.20%	3.23%	363.7	3,178.8	(190.0)		2,988.8	2,800	(188.8)	-7%
80						25.0%	3,425.1	56.15	30.00	26.15	0.20%	5.23%	716.5	4,141.6	(190.0)		3,951.6			

Incremental Change: Proposal less Current Law

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
30							37.5							37.5	190.0	190.0	185.1	200	14.9	7%
40							98.5							98.5	190.0	190.0	478.5	600	121.5	20%
50							159.5							159.5	190.0	190.0	539.5	600	60.5	10%
60							220.5		(10.00)	6.15		1.23%	108.5	329.0	190.0	190.0	709.0	700	(9.0)	-1%
70							281.5		(10.00)	10.00		1.69%	190.6	472.1	190.0	190.0	852.1	800	(52.1)	-7%
80							342.5		(10.00)	10.00		1.19%	163.4	505.9	190.0	190.0	885.9			