



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

Department of Revenue

TAX DIVISION

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February 6, 2017

The Honorable Les Gara
Alaska State Representative
State Capitol Rooms 511
Juneau, AK 99801

Representative Gara,

This letter is in response to your email dated December 23, 2016, in which you requested updates to several questions regarding the state's oil and gas production tax. These questions were originally addressed in an analysis provided by the Department of Revenue in January 2016. We are only updating those questions from the 2016 analysis which have different answers due to changes in forecasted costs. The questions are restated in *italics* below and our answers follow.

Your email also inquired about the oil and gas production tax rates for several US states. In it, you referenced the 2015 report from the Competitiveness Review Board (CRB). The Department of Revenue does not regularly track changes in tax regimes outside of Alaska. However, the CRB is actively engaged in an update to their 2015 report. This should be looking at the tax systems for the jurisdictions you're interested in. It's also my understanding that the review will be modeling several of the tax and credit proposals that have been introduced or debated over the past year.

- 1. What is the approximate effective net profits tax rate (the percentage of net profits actually taxed) for GVR, and for Non-GVR discounted North Slope fields at the following prices: \$60, \$70, \$80, \$90, \$100, \$110, \$120, \$130, \$140, and \$150/bbl?***

Please see table below for approximations of effective production tax rates on net value of some "typical" fields with specific assumptions. For this analysis, we assume a "typical" field with \$9.77 per barrel transportation costs and \$33.64 per barrel deductible lease expenditures. We do not account for credits other than the per-taxable-barrel credits. Note that due to the nuances in the tax calculation, these results may not exactly match the Fall 2016 forecast.

**Effective Tax Rates on Net Value
using Current Assumptions***

Oil Price	Non-GVR	20% GVR Eligible
\$60	12.1%	0.0%
\$70	9.1%	0.3%
\$80	13.1%	7.9%
\$90	20.0%	12.2%
\$100	24.4%	15.0%
\$110	27.5%	17.0%
\$120	29.8%	18.4%
\$130	31.5%	19.5%
\$140	32.9%	20.4%
\$150	34.1%	21.1%

*Current assumptions include transport costs of \$9.77 per barrel and deductible lease expenditures of \$33.64 per taxable barrel, based on the North Slope average for FY 2018 as estimated in the Fall 2016 forecast. For this table, net value is the same as "production tax value," defined in AS 43.55.160. The effective tax rates in this table are calculated by dividing the production tax after credits by the production tax value.

2. *At what prices does the 35% tax rate kick in for non-GVR fields?*
3. *At what price does the profits tax fall so low that the 4% minimum gross tax becomes the tax rate?*

We interpret questions 2 and 3 to be related and we have reframed them as follows: For non-GVR fields, at what prices does the minimum tax of 4% of gross value at the point of production exceed the base tax of 35% of production tax value minus per-taxable-barrel credits? In other words, at what price point do non-GVR fields begin to lose their sliding scale per-taxable-barrel credits? And secondarily, at what price point do non-GVR fields lose all of their sliding scale per-taxable-barrel credits? We have answered these questions with the example below.

Using assumptions of \$9.77 in transport costs and \$33.64 per taxable barrel in deductible lease expenditures, applied to a typical field, we estimate that the minimum tax of 4% of gross value at the point of production exceeds 35% of production tax value minus sliding scale per-taxable-barrel credits at between \$73 and \$74 per barrel, for a typical field. This is illustrated in the calculation below.

Minimum Tax Threshold - Base Tax and Minimum Tax using Current Assumptions*	
West Coast Price (\$/tax bbl)	\$73.55
Transportation (\$/tax bbl)	-\$9.77
Wellhead Value (\$/tax bbl)	\$63.78
Lease Expenditures (\$/tax bbl)	-\$33.64
Net Value (\$/tax bbl)	\$30.14
Base Tax Rate (%)	x 35%
Base Production Tax before Credits (\$/tax bbl)	\$10.55
Sliding Scale Credit per-Taxable-Barrel (\$/tax bbl)	-\$8
Base Production Tax after credits (\$/tax bbl)	\$2.55
Minimum Tax Rate (%)	4%
Wellhead Value (\$/tax bbl)	x \$63.78
Minimum Tax (\$/tax bbl)	\$2.55

Base production
tax after credits
equals minimum
tax at this price

*Current assumptions include transportation costs of \$9.77 per barrel and deductible lease expenditures of \$33.64 per taxable barrel, based on the North Slope average for FY 2018 as estimated in the Fall 2016 forecast. For this table, net value is the same as "production tax value," defined in AS 43.55.160.

Using the same assumptions for transportation costs and deductible lease expenditures, non-GVR fields are unable to apply any of the \$8 per-taxable-barrel credit against tax liability at oil prices of \$47.75 per barrel and lower. At this price, the base tax before credits equals the minimum tax. This is illustrated in the calculation below. The exact prices will vary depending on specific economics for different fields and producers.

**Minimum Tax Equal to Base Tax before Credits,
Current Assumptions***

West Cost Price (\$/tax bbl)	\$47.75
Transportation (\$/tax bbl)	-\$9.77
Wellhead Value (\$/tax bbl)	\$37.98
Lease Expenditures (\$/tax bbl)	-\$33.64
Net Value (\$/tax bbl)	\$4.34

Base Tax Rate (%)	x 35%
Base Production Tax before Credits (\$/tax bbl)	\$1.52
Sliding Scale Credit per-Tax-Barrel (\$/tax bbl)	xxx
Base Production Tax after credits (\$/tax bbl)	\$1.52

Minimum Tax Rate (%)	4%
Wellhead Value (\$/tax bbl)	x \$37.98
Minimum Tax (\$/tax bbl)	\$1.52

Base production tax
before credits equals
minimum tax, therefore
no sliding scale credits
can be used

*Current assumptions include transportation costs of \$9.77 per barrel and deductible lease expenditures of \$33.64 per taxable barrel, based on the North Slope average for FY 2018 as estimated in the Fall 2016 forecast. For this table, net value is the same as "production tax value," defined in AS 43.55.160.

4. *What is the effective profits tax rate GVR fields pay at \$30, \$40, 50, and \$60/bbl? When does that rate hit 0%?*

As shown in the answer to question 1 above, the effective tax rates on net value for 20% GVR-eligible fields reach 0% at oil prices of approximately \$69 per barrel and lower for an illustrative field. The exact price will vary depending on specific economics for different fields and producers.

We hope you find this information to be useful. Please do not hesitate to contact me if you have questions or need additional information.

Sincerely,



Ken Alper
Tax Division Director