

Alaska Oil and Gas Production Tax Calculation ("Order of Operations")

Presented by



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Acronyms used in this presentation

- ANS – Alaska North Slope
- Avg - Average
- Bbl – Barrel
- CBRF – Constitutional Budget Reserve Fund
- CIT – Corporate Income Tax
- DOR – Department of Revenue
- GVPP – Gross Value at Point of Production
- GVR – Gross Value Reduction
- Min – Minimum
- NPR-A – National Petroleum Reserve Alaska
- PTV – Production Tax Value
- Ths – Thousands
- FY – Fiscal Year

Overview

- Oil and Gas revenue sources – how production tax fits in
 - FY 2017 – FY 2021 oil and gas revenues
- Production tax calculation “order of operations”
 - Detailed walk-through of each step of tax calculation
 - Focus on North Slope oil
 - FY 2017 – FY 2021 comparison
- Distribution of Cash Flows for North Slope oil

Disclaimer

- Alaska's severance tax is one of the most complex in the world, and portions are subject to interpretation and dispute
- These numbers are rough approximations based on public data as presented in the spring 2019 forecasts and other revenue forecasts.
- We are economists, not auditors. This presentation is not an official statement of the Department as to any particular tax liability, interpretation, or treatment. This is not tax advice or guidance. This presentation is solely for illustrative general purposes.

Oil and Gas Revenue Sources

- Royalty - based on gross value of production
 - plus bonuses, rents & interest
 - Paid to owner of the land: State, Federal, or private
 - Usually 12.5% in Alaska, but rates vary
- Corporate Income Tax – based on net income
 - Paid to State (9.4% top rate)
 - Paid to Federal (21% top rate, used to be 35%)
 - Only C-corporations pay this tax *
- Property Tax – based on value of oil & gas property
 - Paid to State (2% of assessed value or “20 mills”)
 - Paid to Municipalities – credit offsets state tax paid
- Production Tax – based on “production tax value”
 - Paid to State – calculation to follow

* “C-corporation” is a business term that is used to distinguish the type of business entity, as defined under subchapter C of the federal Internal Revenue Code.

Oil and Gas Revenue Sources – 5 year comparison of state revenue

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
ANS oil price (\$/bbl)	\$ 49.43	\$ 63.61	\$ 69.80	\$ 66.00	\$ 66.00
ANS production (thb bbl/ day)	526.4	518.4	511.5	529.5	511.7
Property Tax *	\$ 120	\$ 122	\$ 123	\$ 121	\$ 116
Corporate Income Tax	\$ (59)	\$ 66	\$ 195	\$ 210	\$ 210
Production Tax	\$ 134	\$ 750	\$ 735	\$ 525	\$ 511
Royalties	\$ 1,021	\$ 1,365	\$ 1,453	\$ 1,298	\$ 1,242
CBRF Settlements	\$ 482	\$ 121	\$ 125	\$ 150	\$ 125
NPR-A Shared revenue	<u>\$ 1</u>	<u>\$ 24</u>	<u>\$ 8</u>	<u>\$ 11</u>	<u>\$ 10</u>
Total	\$ 1,700	\$ 2,448	\$ 2,639	\$ 2,314	\$ 2,214

Revenue amounts in \$ millions. Source: DOR Spring 2019 forecast.

* Property Tax is does not include municipal share.

Production Tax "Order of Operations" – FY 2020

	Per Barrel	Barrels	Value (\$ million)	
Avg ANS Oil Price (\$/bbl) & Daily Production (ths bbls)	\$66.00	529.5		
Total Annual Production/Value		193,782	\$12,789.6	
Royalty and Federal barrels		(21,595)	(\$1,425.3)	
Taxable barrels		172,187	\$11,364.4	
Downstream (Transportation) Costs (\$/bbl)	(\$8.81)	172,187	(\$1,516.3)	
Gross Value at Point of Production (GVPP)	\$57.19	172,187	\$9,848.1	
North Slope Lease Expenditures				
Deductible Operating Expenditures	(\$15.55)		(\$2,677.7)	
Deductible Capital Expenditures	(\$11.71)		(\$2,016.5)	
Total Lease Expenditures	(\$27.26)	172,187	(\$4,694.2)	
Production Tax Value (PTV)	\$29.93		\$5,153.8	
Production Tax			<u>Min Tax</u>	<u>Net Tax</u>
Gross Value or Production Tax Value			\$9,848.1	\$5,153.8
Gross Value Reduction (GVR)			\$0.0	(\$128.0)
GVPP or PTV after GVR			\$9,848.1	\$5,025.8
Tax rate			4%	35%
Tax before credits	\$2.29 (Min) / \$10.22 (Net)		\$393.9	\$1,759.0
Higher of minimum or net tax			\$1,759.0	
Per-taxable-barrel credits	-\$7.29		(\$1,255.7)	
Other credits against liability			(\$22.0)	
Total Tax after credits	\$2.80		\$481.3	
Other items / adjustments			\$43.4	
Total Tax paid to the state			\$524.7	
Non-Deductible Lease Expenditures - carried forward			\$823.6	

Source: Department of Revenue – spring 2019 forecast. Illustration only of North Slope oil production tax calculation and may not exactly match company-specific calculations

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1. Royalty & Taxable Barrels

Source: Department of Revenue – spring 2019 forecast. Illustration only of North Slope oil production tax calculation and may not exactly match company-specific calculations

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2. Gross Value At Point of Production (GVPP)

Source: Department of Revenue – spring 2019 forecast. Illustration only of North Slope oil production tax calculation and may not exactly match company-specific calculations

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3. Lease Expenditures

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4. Production Tax Value (PTV)

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5. Gross Minimum Tax

Source: Department of Revenue – spring 2019 forecast. Illustration only of North Slope oil production tax calculation and may not exactly match company-specific calculations

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Total Tax paid to the state			\$524.7
<i>Non-Deductible Lease Expenditures - carried forward</i>			\$823.6

6. Net Tax and Gross Value Reduction (GVR)

Source: Department of Revenue – spring 2019 forecast. Illustration only of North Slope oil production tax calculation and may not exactly match company-specific calculations

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7. Tax Credits against liability

Source: Department of Revenue – spring 2019 forecast. Illustration only of North Slope oil production tax calculation and may not exactly match company-specific calculations

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8. Adjustments and Total Tax Paid

Source: Department of Revenue – spring 2019 forecast. Illustration only of North Slope oil production tax calculation and may not exactly match company-specific calculations

Order of Operations – 5 year comparison

	ACTUAL FY 2017		ACTUAL FY 2018		Current Year FY 2019		Forecast FY 2020		Forecast FY 2021	
	Value (\$ million)		Value (\$ million)		Value (\$ million)		Value (\$ million)		Value (\$ million)	
Total Annual Production/Value	\$9,499.1		\$12,036.0		\$12,862.4		\$12,789.6		\$12,326.7	
Royalty and Federal barrels	(\$1,234.8)		(\$1,444.2)		(\$1,537.9)		(\$1,425.3)		(\$1,362.1)	
Taxable barrels	\$8,264.2		\$10,591.8		\$11,324.5		\$11,364.4		\$10,964.6	
Downstream (Transportation) Costs (\$/bbl)	(\$1,621.8)		(\$1,585.7)		(\$1,382.5)		(\$1,516.3)		(\$1,479.6)	
Gross Value at Point of Production (GVPP)	\$6,642.4		\$9,006.1		\$9,942.0		\$9,848.1		\$9,485.0	
North Slope Lease Expenditures										
Deductible Operating Expenditures	(\$2,835.6)		(\$2,581.0)		(\$2,631.1)		(\$2,677.7)		(\$2,676.1)	
Deductible Capital Expenditures	(\$1,646.8)		(\$1,485.1)		(\$1,631.3)		(\$2,016.5)		(\$2,080.9)	
Total Lease Expenditures	(\$4,482.4)		(\$4,066.1)		(\$4,262.4)		(\$4,694.2)		(\$4,757.0)	
Production Tax Value (PTV)	\$2,160.0		\$4,940.0		\$5,679.6		\$5,153.8		\$4,728.0	
Production Tax	<u>Min Tax</u>	<u>Net Tax</u>	<u>Min Tax</u>	<u>Net Tax</u>	<u>Min Tax</u>	<u>Net Tax</u>	<u>Min Tax</u>	<u>Net Tax</u>	<u>Min Tax</u>	<u>Net Tax</u>
Gross Value or Production Tax Value	\$6,642.4	\$2,160.0	\$9,006.1	\$4,940.0	\$9,942.0	\$5,679.6	\$9,848.1	\$5,153.8	\$9,485.0	\$4,728.0
Gross Value Reduction (GVR)	\$0.0	(\$73.4)	\$0.0	(\$91.1)	\$0.0	(\$96.3)	\$0.0	(\$128.0)	\$0.0	(\$126.3)
GVPP or PTV after GVR	\$6,642.4	\$2,086.6	\$9,006.1	\$4,848.9	\$9,942.0	\$5,583.3	\$9,848.1	\$5,025.8	\$9,485.0	\$4,601.7
Tax rate	4%	35%	4%	35%	4%	35%	4%	35%	4%	35%
Tax before credits	\$265.7	\$730.3	\$360.2	\$1,697.1	\$397.7	\$1,954.2	\$393.9	\$1,759.0	\$379.4	\$1,610.6
Higher of minimum or net tax	\$730.3		\$1,697.1		\$1,954.2		\$1,759.0		\$1,610.6	
Per-taxable-barrel credits	(\$536.0)		(\$1,027.0)		(\$1,241.5)		(\$1,255.7)		(\$1,121.7)	
Other credits against liability	(\$34.0)		(\$60.0)		(\$36.2)		(\$22.0)		(\$14.0)	
Total Tax after credits	\$160.3		\$610.1		\$676.5		\$481.3		\$474.9	
Other items / adjustments	(\$25.8)		\$139.8		\$58.5		\$43.4		\$35.7	
Total Tax paid to the state	\$134.5		\$749.9		\$735.0		\$524.7		\$510.6	
<i>Non-Deductible Lease Expenditures - carried forward (or credit at 35% prior to 2018)</i>	\$318.1		\$312.5		\$359.2		\$823.6		\$1,425.6	

Source: Department of Revenue – spring 2018, and spring 2019 forecasts. Illustration only of North Slope oil production tax calculation and may not exactly match company-specific calculations

Thank You

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Addendum – FY 2020 Distribution of Cash Flows

Distribution of Cash Flows – North Slope Oil

- Share of net cash flows after transportation costs and lease expenditures that go to government vs company
- Modeled two ways
 - Typical non-GVR production
 - All North Slope production and spending

Distribution of Cash Flows – North Slope Oil

Typical Non-GVR Production

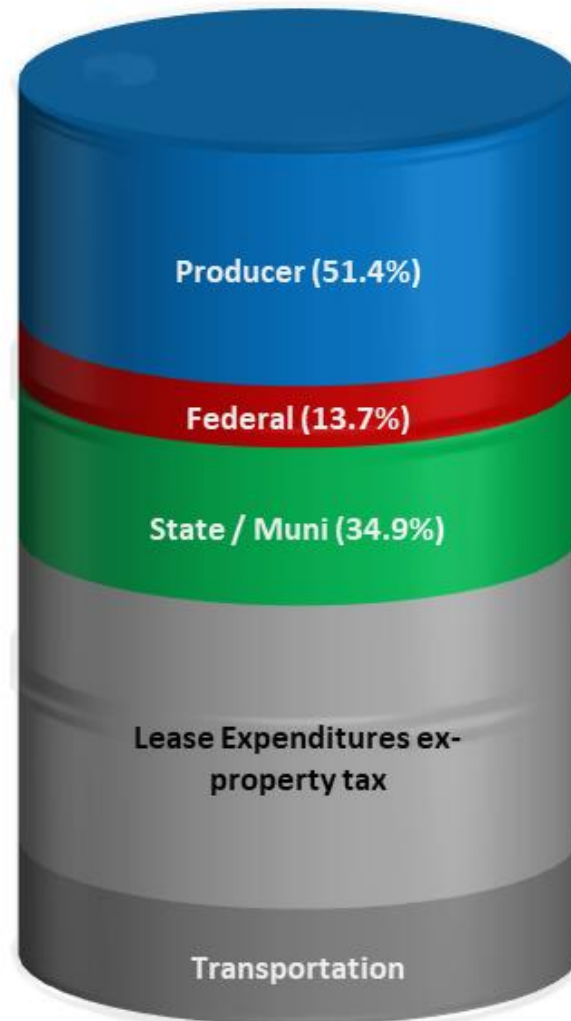
- Charts shown are produced using DOR “Snapshot” model
- Assumes a single company with all deductible costs
- Simplifying assumptions such as non-GVR oil only; North Slope only; etc.
- Transportation costs, production, and lease expenditures, and other assumptions from Spring 2019 forecast for FY 2020
- Prices are expressed in nominal terms

Transportation Costs (\$/bbl)	8.81
Royalty Rate	12.5%
State CIT Rate	6.50%
Federal CIT Rate	21.00%
Deductible Upstream CAPEX (\$/ total bbl)*	10.41
Deductible Upstream OPEX (\$/ total bbl)*	<u>13.82</u>
Total Upstream Costs (\$/ bbl)*	24.23
Daily Production (ths bbls / day)	529.5
Property Tax (\$/bbl)	1.25

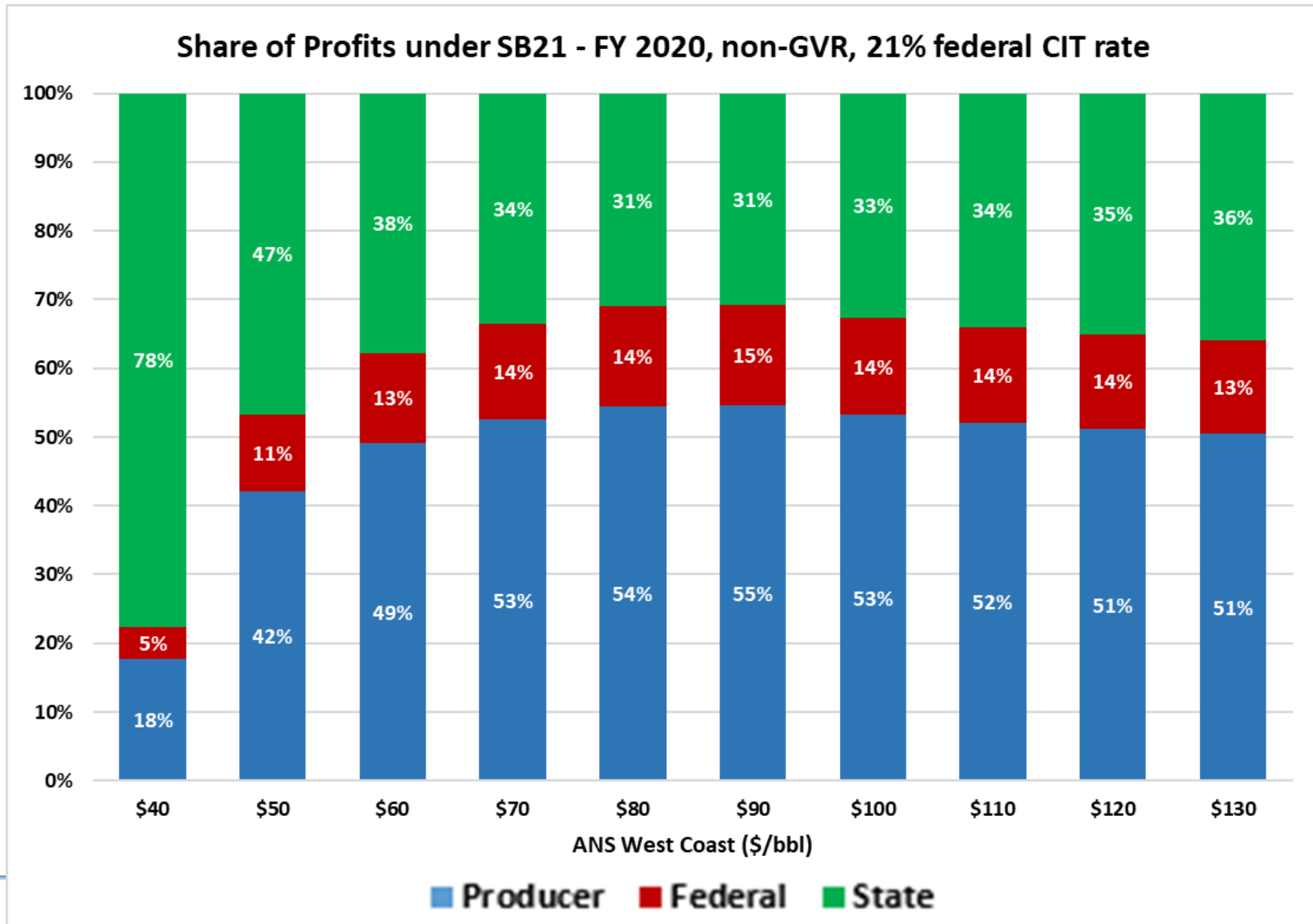
* Upstream cost in this analysis is calculated per each barrel produced including royalty barrels. Costs represent total estimated deductible costs for FY 2020, and incorporate estimated industry spending in the Spring 2019 forecast.

Distribution of Cash Flows from One Barrel of Typical Non-GVR Production

FY 2020 Allocation of Revenue and Profit on a barrel of oil under SB21 and \$66 ANS Price



Government Take at Range of Prices from Typical Non-GVR Production



Distribution of Cash Flows – North Slope Oil Using All Slope-wide Production and Costs

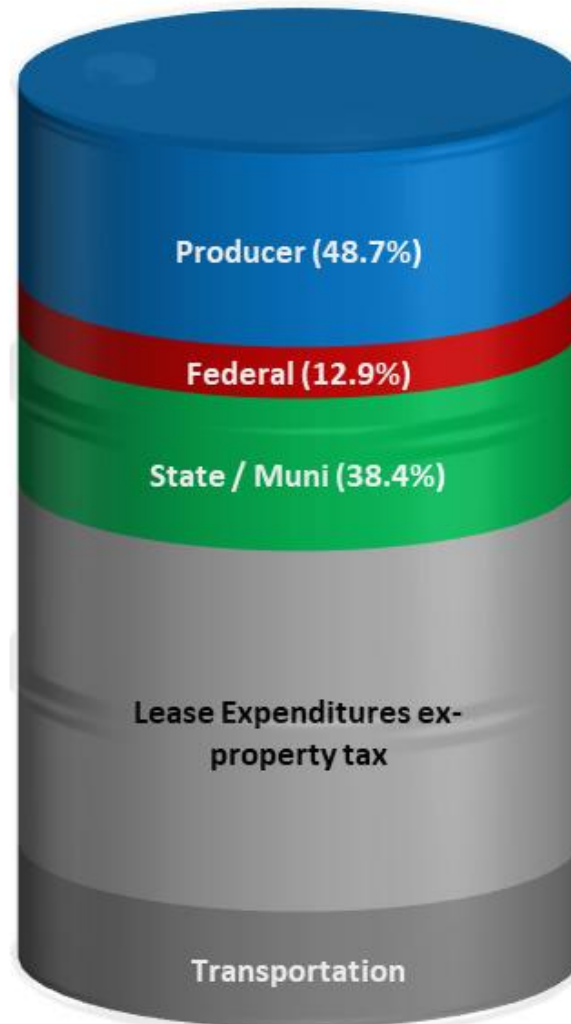
- Charts shown are produced using DOR “Snapshot” model
- Assumes a two companies with all costs (one GVR, one non-GVR)
- Simplifying assumptions such as oil only; North Slope only; etc.
- Transportation costs, production, and lease expenditures, and other assumptions from Spring 2019 forecast for FY 2020
- Prices are expressed in nominal terms

Transportation Costs (\$/bbl)	8.81
Royalty Rate	12.5%
State CIT Rate	6.50%
Federal CIT Rate	21.00%
TOTAL Upstream CAPEX (\$/ total bbl)*	14.02
TOTAL Upstream OPEX (\$/ total bbl)*	<u>14.46</u>
Total Upstream Costs (\$/ bbl)*	28.48
Daily Production (ths bbls / day)	529.5
GVR Production (ths bbls / day)	47.2
Property Tax (\$/bbl)	1.25

* Upstream cost in this analysis is calculated per each barrel produced including royalty barrels. Costs represent total estimated deductible costs for FY 2020, and incorporate estimated industry spending in the Spring 2019 forecast.

Distribution of Cash Flows from One Barrel, Using All Slope-wide Production and Costs

FY 2020 Allocation of Revenue and Profit on a barrel of oil under SB21 and \$66 ANS Price



Government Take at Range of Prices, Using All Slope-wide Production and Costs

Share of Profits under SB21 - FY 2020, all production and costs, 21% federal CIT rate

