

Revenue Sources Book Fall 2015

Alaska Department of Revenue • Tax Division • www.tax.alaska.gov

Dec. 8, 2015

Chapters 1, 2, and the Appendices of the *Revenue Sources Book Fall 2015* are included on the following pages. The Alaska Department of Revenue's Tax Division publishes the *Revenue Sources Book* each fall, and publishes an update to the fall numbers the following spring.

The *Revenue Sources Book* contains the annual forecast that provides basic information about state revenue, as well as a forecast of state revenue over the next 10 years.

Chapters 1, 2, and the Appendices represent the basic data for the Fall 2015 revenue forecast, which was released today. The remainder of the *Revenue Sources Book* will be published later this month.

In the following chapters, as well as in the rest of the RSB, quick response (QR) codes are included on the first page of each chapter so that the data tables are accessible online in Microsoft Excel format. See Chapter 1, page 6, for more information on accessing the tables in the Excel format.

Chapter 1

Introduction

Purpose

The *Revenue Sources Book* (RSB) is intended to provide Alaskans with a report of historical, current, and estimated future state revenue. The Governor uses the information in this publication to formulate his comprehensive financial plan before presenting it to the Alaska State Legislature. Over the years, the RSB has become an educational tool to inform the general public of how the state's revenues are structured. The RSB also provides in-depth coverage on a topic relevant to current or future state revenues each year in Chapter 3. This year's chapter is entitled, "Bridging the Gap Toward a Sustainable Fiscal Future."

This publication is prepared primarily by the Economic Research Group, a part of the Tax Division in the Department of Revenue, in accordance with AS 37.07.060 (b)(4). Forecasts of state revenue are made using models developed by the department's Economic Research Group and other state agencies. The department expresses its gratitude to those state agencies and the individuals in those agencies who have provided information, assistance, and analysis for this RSB.

Forward-Looking Statements

All figures and narratives in this document that are not based on events that have already occurred constitute forecasts or "forward-looking statements." These numbers are projections based on assumptions regarding uncertain future events and the responses to those events. Such figures are, therefore, subject to uncertainties and actual results will differ, potentially materially, from those anticipated. The department attempts to capture these uncertainties in order to provide policymakers and the general public with a general understanding of the scale and scope of future revenue streams. These figures do not necessarily represent a single scenario of a future path. The official forecast process takes into account many possible outcomes and attempts to minimize deviations from what is likely to happen.

Readers are cautioned to take uncertainty into account when considering forward-looking statements in making decisions. The department will update the

estimates in this RSB in the spring of 2016, as more information is received. This forecast supersedes all prior estimates or forecasts as the official forecast of the department. Therefore, all prior forecasts should be used only for comparison purposes.

QR Codes

As with the Fall 2014 RSB, quick response (QR) codes are again included on the first page of each chapter so that the data tables are accessible online in Microsoft Excel format. To access them, use a QR code recognition application with your mobile phone, smart phone, or tablet to take a picture of the QR code, which looks similar to Figure 1-A. The Figure 1-A QR code will take you to the *Revenue Sources Book* directory on the Tax Division website. The device will display a website with the link to download the Microsoft Excel workbook containing the tables found in the corresponding chapter. If you are reading the RSB in PDF form, the QR code images are hyperlinked to their corresponding Web addresses.

Changes

Additional tables have been added to Chapter 2 and Chapter 8. In Chapter 2, two tables have been added: Table 2-5 to provide additional context to the state's restricted revenue, and Table 2-6 to include the numeric data previously only shown in Figure 2-B detailing historical total state revenue. The one table that was added in Chapter 8, Table 8-4, includes the maximum level of detail releasable for historical and forecasted oil and gas production tax credits, a subject of substantial ongoing discussion throughout the state. This table divides oil and gas credits between those that are refundable and those used against tax liability, and by geographic location where the credit was claimed. This table includes historical data back to FY 2007 and the credits forecast out to 2020. This data set was first put together and released to the public earlier in 2015.

Defining Revenue Categories

Throughout the RSB, revenues are divided into categories in two ways: by revenue source (where the revenue comes from), and spending restriction or designation

(how the revenue may be used). There are three basic revenue sources: 1) funds collected from in-state activities, 2) funds received from the federal government, and 3) earnings from investments (interest and payments earned on assets owned by the state). Due to the importance of revenues from oil production, in-state activities are further divided into a) petroleum revenue and b) non-petroleum revenue. A graphic depiction of how the revenues are categorized by revenue collection type is shown in Figure 1-B.

Chapter 1
A

QR Codes
To access data tables online



Revenue is also categorized by the level of restrictions regarding its use. Those categories are “unrestricted” (available to fund general state activities and capital projects) or “restricted” (historically used or required to be used for a specific purpose).

This year the department is presenting additional context on how the “restricted” revenues are categorized. Figure 2-5 as part of the Executive Summary details this context. The new presentation shows all revenue that is available for current-year appropriation, regardless of customary uses or restrictions. Revenue available for current-year appropriation includes unrestricted revenue, but also certain customarily restricted revenues, such as revenue that flows into the Constitutional Budget Reserve Fund, and realized earnings of the Permanent Fund. Discussion of this concept can be found in Chapter 2. Presentation of unrestricted and restricted revenues is otherwise unchanged in this RSB.

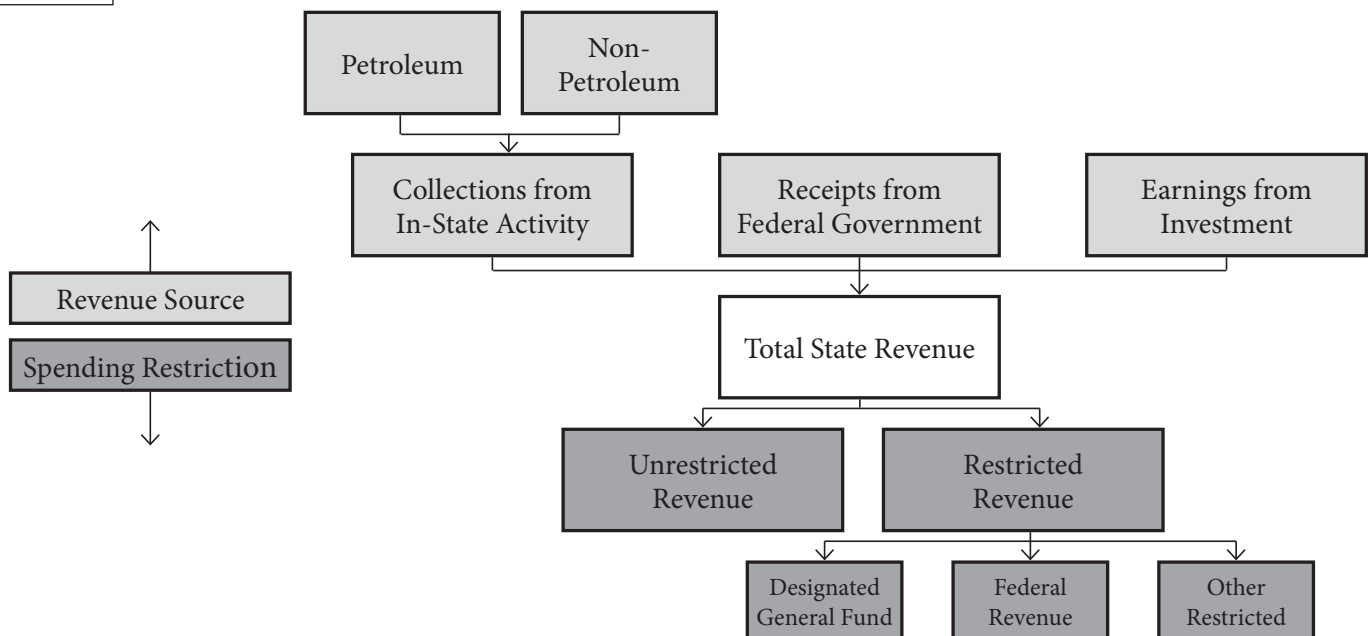
Any revenue that is not restricted by the Alaska Constitution, state or federal law, trust or debt restrictions, or customary practice is considered “General Fund Unrestricted Revenue” or simply “unrestricted revenue.”

Most legislative and public discussion centers on the unrestricted category of revenue, and it is the figure most commonly referenced in budget discussions.

Restricted revenues are divided into three types: “Designated General Fund,” “Other Restricted Revenue,” and “Federal Revenue” to aid in the budget process.

Chapter 1
B

Revenue Categories
The sources and restrictions on spending





Chapter 2

Executive Summary

Introduction

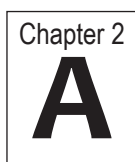
The State of Alaska received a total \$8.5 billion in FY 2015 from all sources, more than a 50% drop in total revenue from FY 2014. Of this total, general fund unrestricted revenues (GFUR) totaled \$2.3 billion, with oil and gas revenues accounting for approximately 75% of all unrestricted revenue. Unrestricted revenues have also collapsed by over 50%. For comparison, in FY 2014, total state revenues were \$17.2 billion and GFUR totaled \$5.4 billion. The Department of Revenue forecasts total revenue as \$9.5 billion in FY 2016 and \$10.3 billion in FY 2017.

Utilizing the new convention for the *Revenue Sources Book* that takes into account what is available for appropriation, there is expected to be about \$5.4 billion in current-year revenue available for appropriation for FY 2016. For comparison, the state had \$6.0 billion in current-year revenue available for appropriation in FY 2015. In addition to unrestricted revenue, "current-year revenue available for appropriation" also includes designated general fund revenue, as well as realized earnings of the Permanent Fund accounted

for in the Earnings Reserve, earnings of the Constitutional Budget Reserve Fund, various royalty and tax deposits to the Constitutional Budget Reserve, and various royalty and tax deposits in excess of the constitutional minimum into the Permanent Fund.

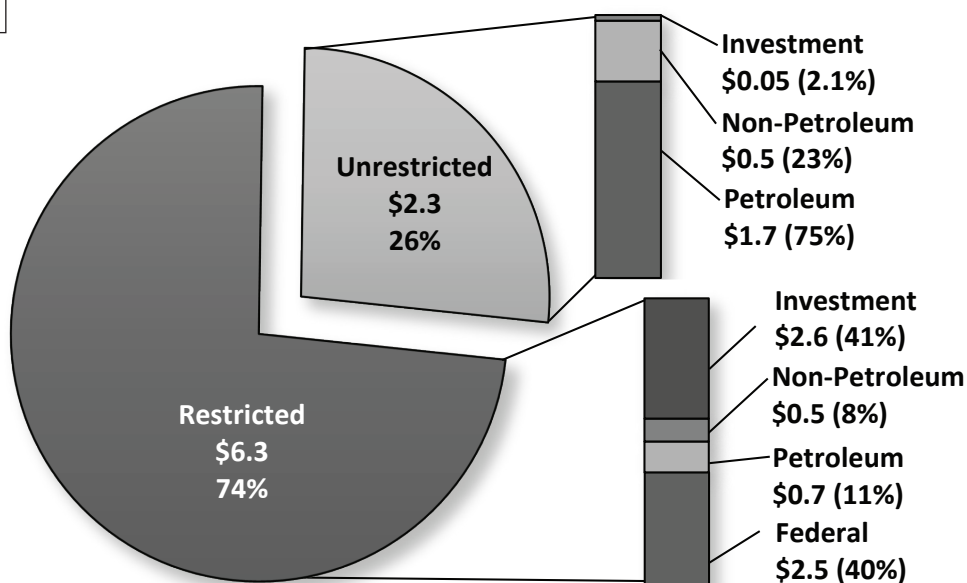
Figure 2-A graphically illustrates the composition of total revenue by restriction and type. As depicted in Table 2-1, the department is forecasting unrestricted revenue (not the new convention) of \$1.6 billion and \$1.8 billion for FY 2016 and FY 2017, respectively. This is a revision to the department's forecast of unrestricted revenue from the previous forecast. The single-most influential contributor to the revision is a reduced oil price expectation.

The FY 2016 revenue forecast is based on an annual average Alaska North Slope (ANS) oil price of about \$50 per barrel for FY 2016 and about \$56 per barrel for FY 2017. The oil price forecast is considerably less than the last several years. Actual ANS oil prices averaged \$72.58 in FY 2015. For FY 2016, the ANS West Coast average oil price forecast declined to below \$50 per barrel in this forecast from about \$66 in the spring 2015 forecast, a



FY 2015 Total State Revenue

By restriction and type, in billions of dollars



Total State Revenue

By restriction and source

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
Unrestricted Revenue Sources			
Unrestricted General Fund Revenue			
Petroleum Revenue	1,687.9	1,061.5	1,237.3
Non-Petroleum Revenue	521.5	510.1	521.0
Investment Revenue	47.9	21.3	38.1
Federal Revenue	0.0	0.0	0.0
Total Unrestricted Revenue	2,257.3	1,593.0	1,796.4
Restricted Revenue Sources			
Designated General Fund Revenue			
Non-Petroleum Revenue	313.3	348.2	338.7
Investment Revenue	17.7	6.8	37.8
Subtotal Designated General Fund Revenue	331.0	355.0	376.5
Other Restricted Revenue			
Petroleum Revenue	667.3	307.7	351.8
Non-Petroleum Revenue	183.9	219.7	220.5
Investment Revenue	2,585.7	3,773.4	4,309.0
Subtotal Other Restricted Revenue	3,436.9	4,300.8	4,881.3
Federal Revenue			
Petroleum Revenue ¹	3.2	4.3	4.3
Federal Receipts	2,512.7	3,290.2	3,290.2
Subtotal Federal Revenue	2,515.9	3,294.5	3,294.5
Total Restricted Revenue	6,283.8	7,950.3	8,552.3
Total State Revenue	8,541.1	9,543.3	10,348.7

¹Petroleum revenue shown in the federal category includes the state share of rents, royalties and bonuses received from the National Petroleum Reserve in Alaska.

decline of 24%. The department projects that annual average prices will increase over \$80 (nominal) within the 10-year forecast period, based on fundamental analysis of the structure of oil markets.

For FY 2015, total crude oil production in Alaska for the North Slope and Cook Inlet areas averaged 519,500 barrels per day. This is 27,400 barrels per day less than in FY 2014. North Slope production decreased from 531,100 in FY 2014 to 501,500 in FY 2015. While there was a 13.6% increase in production in Cook Inlet, this was not sufficient to offset a 5.6% decrease on the North Slope. Total statewide oil production decreased

by 5.0%. In general, this provides downward pressure on oil and gas revenues, although not on the same scale as the decrease in price.

Lease expenditures are expected to drop over the next two years. While decreases in lease expenditures result in higher near-term total revenue, they may mean lower long-term production rates.

General Fund Unrestricted Revenue

General fund unrestricted revenue is not restricted by the Alaska Constitution, state or federal law, trust

Unrestricted General Fund Revenue

By source and type

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
Unrestricted Petroleum Revenue			
Petroleum Taxes			
Petroleum Property Tax	125.2	133.9	131.7
Petroleum Corporate Income Tax	94.8	105.0	160.0
Oil & Gas Production Tax	389.7	172.1	187.8
Subtotal Petroleum Taxes	609.7	411.0	479.5
Royalties (including Bonuses, Rents, and Interest)			
Mineral Bonuses and Rents	22.4	8.7	8.7
Oil & Gas Royalties	1,052.1	637.6	745.0
Interest	3.7	4.2	4.2
Subtotal Royalties	1,078.2	650.5	757.8
Total Unrestricted Petroleum Revenue	1,687.9	1,061.5	1,237.3
Unrestricted Non-Petroleum Revenue			
Non-Petroleum Taxes			
Excise Tax			
Alcoholic Beverage	17.7	20.0	20.1
Tobacco Product – Cigarette	27.7	28.2	27.2
Tobacco Product – Other	12.8	14.2	14.9
Electric and Telephone Cooperative	0.2	0.2	0.2
Insurance Premium	59.1	58.9	58.3
Marijuana	0.0	0.0	12.0
Motor Fuel	41.8	51.2	51.0
Tire Fee	1.5	1.5	1.6
Vehicle Rental	9.7	9.5	9.6
Subtotal Excise Tax	170.5	183.7	194.9
Corporate Income Tax	136.2	104.7	105.3
Fisheries Tax			
Fisheries Business	21.3	19.5	17.2
Fishery Resource Landing	5.1	5.3	5.6
Subtotal Fisheries Tax	26.4	24.8	22.8
Other Tax			
Charitable Gaming	2.5	2.5	2.5
Estate	0.0	0.0	0.0
Large Passenger Vessel Gambling	6.6	6.7	6.7
Mining	38.6	24.4	21.3
Subtotal Other Tax	47.7	33.6	30.5
Subtotal Non-Petroleum Taxes	380.8	346.8	353.5

(Table continued, next page)

Unrestricted General Fund Revenue

By source and type *(Continued)*

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
Unrestricted Non-Petroleum Revenue			
Charges for Services			
General Government	13.9	12.8	12.8
Natural Resources ¹	-0.6	2.6	2.6
Other	6.8	7.3	7.3
Subtotal Charges for Services	20.1	22.7	22.7
Fines and Forfeitures	12.4	11.4	11.4
Licenses and Permits			
Alcoholic Beverage Licenses	1.3	1.3	1.3
Motor Vehicle	29.5	38.0	35.5
Other	3.6	3.2	3.2
Subtotal Licenses and Permits	34.4	42.5	40.0
Rents and Royalties			
Mining Rents and Royalties	17.0	15.8	15.8
Other Non-Petroleum Rents and Royalties	19.3	15.0	15.0
Subtotal Rents and Royalties	36.3	30.8	30.8
Miscellaneous Revenues and Transfers			
Miscellaneous	16.4	21.6	21.6
Alaska Housing Finance Corporation	3.1	8.7	13.4
Alaska Industrial Development & Export Authority ²	10.2	17.7	17.7
Alaska Municipal Bond Bank Authority	0.0	0.9	0.9
Alaska Student Loan Corporation	0.6	0.0	0.0
Alaska Energy Authority	0.2	1.0	1.0
Alaska Natural Gas Development Authority	0.0	0.0	0.0
Mental Health Trust	0.0	0.0	0.0
Unclaimed Property	7.0	6.0	8.0
Subtotal Miscellaneous Revenues and Transfers	37.5	55.9	62.6
Total Unrestricted Non-Petroleum Revenue	521.5	510.1	521.0
Unrestricted Investment Revenue			
Investment Revenue			
Investments	46.3	19.7	36.5
Interest Paid by Others	1.6	1.6	1.6
Subtotal Unrestricted Investment Revenue	47.9	21.3	38.1
Total Unrestricted Revenue	2,257.3	1,593.0	1,796.4

¹ The Natural Resources category is reported as negative in FY 2015 because of a large year-to-year adjustment in the state accounting system.

² As of Dec. 8, 2015, the AIDEA dividend for FY 2017 is expected to be \$6.3 million. This information was received after compiling the fall 2015 revenue forecast, and will be incorporated into the spring 2016 update.

Restricted Revenue

By source and type

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
Designated General Fund Revenue			
Non-Petroleum Revenue			
Taxes	51.9	48.8	48.0
Charges for Services	227.4	267.1	258.5
Fines and Forfeitures	7.6	9.1	9.0
Licenses and Permits	0.1	0.2	0.2
Rents and Royalties	3.4	4.2	4.2
Other	22.9	18.8	18.8
Subtotal Non-Petroleum Revenue	313.3	348.2	338.7
Investment Revenue			
Investments – Designated General Fund	2.0	1.8	2.9
Other Treasury Managed Funds	15.7	5.0	34.9
Subtotal Investment Revenue	17.7	6.8	37.8
Total Designated General Fund Revenue	331.0	355.0	376.5
Other Restricted Revenue			
Petroleum Revenue			
Royalties to Alaska Permanent Fund and Public School Trust Fund (includes Bonuses and Rents)	518.3	287.7	331.8
Tax and Royalty Settlements to Constitutional Budget Reserve Fund	149.0	20.0	20.0
Subtotal Petroleum Revenue	667.3	307.7	351.8
Non-Petroleum Revenue			
Taxes	68.2	67.7	68.7
Charges for Services	45.3	82.4	82.4
Fines and Forfeitures	23.6	23.5	23.3
Licenses and Permits	33.9	32.4	32.4
Rents and Royalties	6.0	6.9	6.9
Other	6.9	6.8	6.8
Subtotal Non-Petroleum Revenue	183.9	219.7	220.5
Investment Revenue			
Investments – Other Restricted	4.1	3.7	5.9
Constitutional Budget Reserve Fund	197.7	65.5	95.8
Alaska Permanent Fund (realized earnings) ¹	2,931.4	3,354.4	3,403.5
Alaska Permanent Fund (unrealized earnings) ¹	-547.5	349.8	803.8
Subtotal Investment Revenue	2,585.7	3,773.4	4,309.0
Total Other Restricted Revenue	3,436.9	4,300.8	4,881.3

¹ While payouts are limited to realized revenues, both unrealized and realized are shown per Generally Accepted Accounting Principles (GAAP).

(Table continued, next page)

Restricted Revenue

By source and type *(Continued)*

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
Restricted Federal Revenue			
Federal Receipts	2,512.7	3,290.2	3,290.2
Petroleum Revenue			
NPR-A Royalties, Rents and Bonuses	3.2	4.3	4.3
Total Restricted Federal Revenue	2,515.9	3,294.5	3,294.5
Total Restricted Revenue	6,283.8	7,950.3	8,552.3

or debt restrictions, or customary practice. Table 2-2 provides an overview of the FY 2015 composition of general fund unrestricted revenue as well as forecasts for FY 2016 and FY 2017.

In FY 2015, the state received \$2.3 billion in revenue from unrestricted sources, \$1.7 billion of which came from petroleum-related activities. For FY 2016, the department is forecasting a further decrease in unrestricted general fund revenue to \$1.6 billion. This projection is the result of lower global oil prices because of ample supplies on the market, the unlikelihood of Saudi Arabia curtailing oil supply, and flat global demand.

Petroleum Revenues

Petroleum revenue provided 75% of FY 2015 unrestricted revenues, and is not projected to provide more than 72% throughout the rest of the decade as shown in Table 2-4. The unrestricted petroleum revenues come from four components – production tax, royalties, corporate income tax, and petroleum property tax. In turn, four elements are critical to the determination of these revenues: price, production, lease expenditures, and transportation costs. These components are explained briefly below and in greater detail in Chapter 4. Details regarding the remaining petroleum revenue sources can also be found in Chapter 4.

Crude Oil Price

By regulation, the department uses reporting and assessment services to estimate the “prevailing value” for ANS oil. Because there is no spot market for ANS

crude, and as it is not traded on an exchange, Alaska crude oil is assessed based on purchases of crude oil in the West Coast markets, where it is sold primarily to Washington state and California refiners. The average prevailing value of ANS in FY 2015 was \$72.58, a third less than the previous fiscal year’s \$107.57.

In the past, ANS crude was valued against the West Texas Intermediate (WTI) benchmark in the *Revenue Sources Book*. However, since the WTI benchmark has decoupled from ANS and other crude markers, assessment of ANS is now more comparable to other waterborne crude oils such as Brent. Since 2012, the department has forecasted ANS crude oil price directly, rather than forecasting WTI and creating an ANS-WTI differential.

The department considered various oil price forecasts of WTI and Brent oil in deriving the fall 2015 ANS oil price forecast and relied on a panel of experts in determining the price expectations for ANS. The department projects ANS oil prices will average around \$50 per barrel for FY 2016 and \$56 for FY 2017. In the longer-term, the department forecasts ANS to increase above \$80. It is likely that there may be significant oil price volatility within the decade. Details about oil price forecast methodology are provided in Chapter 4.

Crude Oil Production

In the 38th full fiscal year of North Slope production, FY 2015 averaged 501,500 barrels of oil per day. Production in FY 2016 is forecast to be 500,200 barrels of oil per day; by FY 2017, production is forecast to remain relatively flat at around 504,900 barrels per day.

Total Unrestricted General Fund Revenue

A 10-year forecast

Millions of Dollars

Fiscal Year	History		Forecast								
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Petroleum	1,687.9	1,061.5	1,237.3	1,443.0	1,532.5	1,493.9	1,535.1	1,476.1	1,399.4	1,361.7	1,325.6
Non-Petroleum	521.5	510.1	521.0	525.2	530.1	535.2	541.4	544.2	551.0	558.0	565.0
Investment	47.9	21.3	38.1	52.8	67.5	82.2	96.8	111.5	126.2	140.9	155.5
Total Unrestricted Revenue	2,257.3	1,593.0	1,796.4	2,021.0	2,130.0	2,111.3	2,173.3	2,131.8	2,076.5	2,060.6	2,046.1
Percent from Petroleum	75%	67%	69%	71%	72%	71%	71%	69%	67%	66%	65%

Annual average daily production is projected to drop below 500,000 barrels per day starting in FY 2018.

Cook Inlet, in its 57th fiscal year of production, saw a fifth consecutive increase in its annual oil production rate. At 18,000 barrels per day, a 14% increase in production rates over FY 2014, Cook Inlet is now producing more oil than its FY 2007 level. It is not clear what a low oil price environment will do to this production growth.

Lease Expenditures

Under Alaska's net tax system, companies are allowed to deduct certain lease expenditures from the gross value of their production before applying the tax rate. Future tax collections, therefore, are dependent not only on the oil price and the level of production, but also on the cost of that production. Costs of production may include operating expenses, such as the costs of labor or the expense to run a facility, and they may include costs to acquire production equipment or to drill a well – usually deemed to be capital expenses.

North Slope lease expenditures totaled approximately \$7.4 billion in FY 2015. The department projects total North Slope spending to decrease to \$6.9 billion in FY 2016 and \$6.5 billion in FY 2017, and continue to taper off thereafter. Compared to the spring 2015 revenue forecast, this represents a decrease of about \$700 million for FY 2016 and a decrease of about \$800 million for FY 2017.

Transportation Costs

As the volume of oil flowing through a pipeline decreases, the costs of maintaining that pipeline are spread over fewer barrels of oil. The result is that the average cost of delivery for each barrel of oil increases as production declines. Additionally, changes in marine shipping rates include changes in labor costs, capital investment, and cost of fuel. The department is now expecting an increase in costs compared to

the previous forecast. The average cost of delivering oil from Alaska's North Slope to the West Coast is forecast to be about \$10.50 per barrel in FY 2016 and to increase to \$18 per barrel by FY 2025.

Non-Petroleum Revenue from In-State Activity

Other unrestricted revenue includes corporate income taxes from non-petroleum related businesses, excise taxes, consumption taxes, charges for services, fines, forfeitures, licenses, permits, rents, royalties, transfers, and other miscellaneous revenue. These revenues are referred to as "non-petroleum revenues from in-state activity," and do not include federal and investment revenues. Details regarding these revenue sources can be found in Chapter 5. Unrestricted non-petroleum revenues from in-state activities are expected to be over \$500 million in FY 2016, representing a third of all unrestricted revenues. By FY 2025, these revenues are projected to rise to about \$565 million.

Unrestricted Investment Revenue

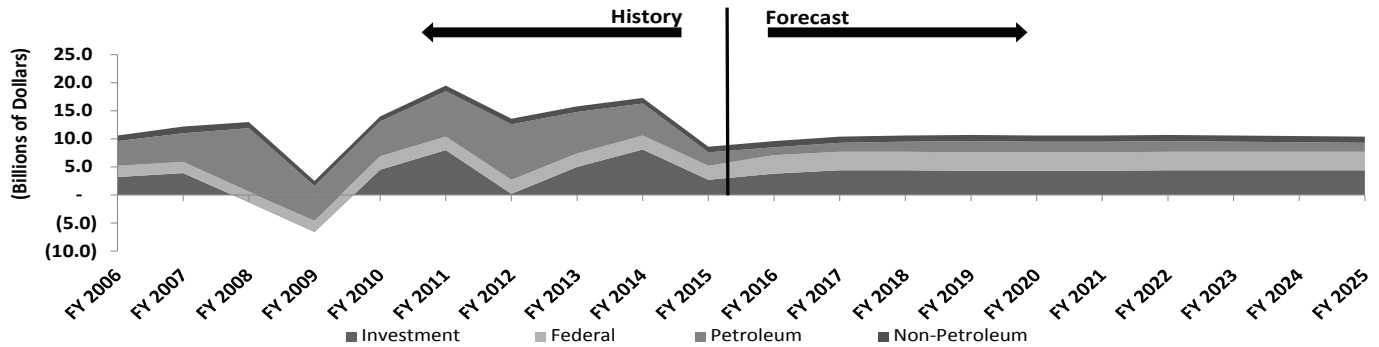
Unrestricted investment revenues are primarily earnings on the general fund. Unrestricted investment revenue is expected to be \$21 million in FY 2016. For comparison, in FY 2015 the unrestricted investment revenue was \$48 million. This represents only a small portion of total investment revenue. The majority of investment revenue is not considered unrestricted and is discussed below.

Restricted Revenues

Restricted revenue includes revenue restricted by the constitution, state or federal law, trust or debt restrictions, customary practice, or other restriction. Table 2-3 shows the components of restricted revenue, which includes money deposited into the "restricted" com-

Total State Revenue

A look back and a forecast



ponent of the general fund, with certain additions.¹ The largest sources of restricted revenue are royalty contributions to the Permanent Fund, receipts from the federal government, and earnings from investments, as well as other restricted non-petroleum revenues. FY 2015 brought \$6.3 billion in total restricted revenues to the state. The FY 2016 projection for total state restricted revenues is \$8.0 billion. Details regarding these sources can be found in chapters 4, 5, 6, and 7.

Some revenue that has historically been considered “restricted” revenue is technically available for current-year appropriation, and is only restricted through custom. This includes designated general fund revenue, as well as realized earnings of the Permanent Fund accounted for in the Earnings Reserve, earnings of the Constitutional Budget Reserve Fund, various royalty and tax deposits to the Constitutional Budget Reserve Fund, and various royalty and tax deposits in excess of the constitutional minimum into the Permanent Fund.

Despite being available for appropriation, both the Constitutional Budget Reserve Fund revenues described above would require a legislative supermajority to approve the appropriation. Table 2-5 presents all current-year revenues available for appropriation, regardless of whether they have traditionally been considered “unrestricted” or “restricted.”

Restricted Royalties

The FY 2016 projection for royalty, bonus, rents, and interest to the Permanent Fund is \$283 million, while

¹Additions might include: (a) receipts deposited in funds other than the general fund, and (b) receipts deposited in the general fund, but restricted by statute or customarily appropriated for a particular purpose or program, such as sharing of fish tax revenue with municipalities.

actual FY 2015 revenue for this category was \$510.4 million. This figure tracks expected changes in price, transportation costs, and production over time. By FY 2025, the department forecasts that Permanent Fund contributions will be \$289.8 million, as the impact on royalty revenue from lower oil production is roughly balanced by higher oil prices. In addition to Permanent Fund deposits, 0.5% of royalty revenue is deposited into the Public School Trust Fund. The latter deposits amounted to \$7.9 million in FY 2015.

Total Investment Revenue

Investment income is the earnings generated from certain assets such as the Permanent Fund, the Constitutional Budget Reserve Fund, and other funds. In FY 2015, the state earned \$2.7 billion on total state assets of about \$67 billion. The department is forecasting \$3.8 billion in FY 2016 investment income from these assets. More information about investment revenue can be found in Chapter 7.

Federal Revenue

All federal funds the state receives are considered restricted for purposes of this forecast. Federal funds include revenues for highways, medical care, education, and other designated purposes. Over recent years, this revenue source has contributed between \$2 billion and \$2.5 billion annually. The state received \$2.5 billion in FY 2015 and is forecasting \$3.3 billion in federal payments to the state for pre-determined uses in FY 2016. However, consistent with practice in prior years, the forecast represents the maximum possible federal revenue contribution, while actual revenues routinely come in below that forecast. More detail regarding federal revenue can be found in Chapter 6.

Current-Year Revenue Subject to Appropriation¹

By source

Fiscal Year	Millions of Dollars		
	History	Forecast	
	2015	2016	2017
Petroleum Revenue			
Unrestricted General Fund	1,687.9	1,061.5	1,237.3
Royalties to Alaska Permanent Fund beyond 25% dedication ²	111.3	48.4	53.9
Tax and Royalty Settlements to Constitutional Budget Reserve Fund	149.0	20.0	20.0
Subtotal Petroleum Revenue	1,948.2	1,130.0	1,311.2
Non-Petroleum Revenue			
Unrestricted General Fund	521.5	510.1	521.0
Designated General Fund	313.3	348.2	338.7
Royalties to Alaska Permanent Fund beyond 25% dedication ²	0.2	1.1	1.1
Tax and Royalty Settlements to Constitutional Budget Reserve Fund	0.1	0.1	0.1
Subtotal Non-Petroleum Revenue	835.1	859.5	860.9
Investment Revenue			
Unrestricted General Fund	47.9	21.3	38.1
Designated General Fund	17.7	6.8	37.8
Constitutional Budget Reserve Fund	197.7	65.5	95.8
Alaska Permanent Fund – Realized Earnings ³	2,931.4	3,354.4	3,403.5
Subtotal Investment Revenue	3,194.7	3,448.0	3,575.2
Total Current-Year Revenue Subject to Appropriation¹	5,977.9	5,437.5	5,747.3

¹ This represents only the largest known categories of current-year funds subject to appropriation. A comprehensive review of all accounts in the state accounting system would likely reveal additional revenues subject to appropriation beyond those identified here.

² Estimate based on deposit to Permanent Fund minus 25% of total royalties.

³ Investment revenue from the Permanent Fund available for appropriation is based on realized gains, a portion of which has been used to inflation-proof the fund historically. In order to inflation-protect the fund in FY 2016, the appropriation is projected at \$892 million.

Total State Revenue

A look back and a forecast

Billions of Dollars

History

Fiscal Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Petroleum	4.4	5.1	11.3	6.1	6.2	8.1	9.9	7.4	5.7	2.4
Non-Petroleum	1.0	1.2	1.1	0.9	0.9	1.0	1.0	1.0	1.0	1.0
Investment	3.2	3.9	-1.3	-6.6	4.5	8.0	0.2	5.0	8.1	2.7
Federal	2.0	2.0	1.9	2.1	2.4	2.4	2.5	2.4	2.5	2.5
Total	10.5	12.2	13.1	2.5	13.9	19.5	13.6	15.8	17.2	8.5

Billions of Dollars

Forecast

Fiscal Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Petroleum	1.4	1.6	1.8	2.0	1.9	1.9	1.9	1.8	1.7	1.6
Non-Petroleum	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Investment	3.8	4.4	4.4	4.3	4.3	4.3	4.4	4.4	4.4	4.4
Federal	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Total	9.5	10.3	10.6	10.7	10.6	10.7	10.6	10.5	10.5	10.5

Glossary and Appendices

Glossary



Constitutional Budget Reserve Fund (CBRF)

Created by voters in 1990, the CBRF receives proceeds from settlements of oil, gas, and mining tax and royalty disputes. The Legislature may, with a three-quarters majority vote in each chamber, withdraw money from the fund.

Designated General Fund Revenue

General fund revenue that is designated for a specific purpose, typically using a general fund subaccount. The Legislature can at any time remove the restrictions on this category of revenue as they are solely imposed by either Alaska statute or customary practice. At times, this category of revenue may be included in legislative and public debate over the budget.

Federal Revenue

When the federal government gives money to states, it typically restricts how that money can be used. For example, highway and airport construction funds, Medicaid, and education funding cannot be used for other purposes. In addition to restricting how the money is spent, the federal government often requires states to put up matching funds to qualify for the federal funding.

General Fund Revenue

General fund revenue has different meanings in different contexts. In the state's official financial reports, general fund revenue is used to designate the sum of general fund unrestricted revenue, general fund sub-account revenue, program receipts and other funds spent through the general fund. In budget reports, general fund revenue is split into revenue with no specific purpose, and revenue with a specific purpose. These categories are called unrestricted general fund revenue and designated general fund revenue, respectively.

General Fund Unrestricted Revenue

Revenue not restricted by the Alaska Constitution, state or federal law, trust or debt restrictions, or customary practice. This revenue is deposited into the state's unrestricted general fund and most legislative and public debate over the budget each year centers on this category of revenue. In deriving the department's Unrestricted Revenue figure from total general fund revenue, the department has excluded general fund

subaccount revenue, as well as customarily restricted revenue such as shared taxes and pass-through revenue for qualified fisheries associations. The department has also added certain revenue such as transfers to the state treasury from the Unclaimed Property Trust and dividends from component units.

Other Restricted State Revenue

Non-federal revenue that is not deposited to the general fund or a subaccount of the general fund. This revenue is restricted by the Alaska Constitution, state or federal law, trust or debt restrictions, or by customary practice.

Permanent Fund GASB (or Market) Income

Under standards adopted by the Governmental Accounting Standards Board, the Permanent Fund's income – and that of any other government fund – is the difference between the purchase price of the investments and their market value at a given point in time, plus any dividends, interest or rent earned on those investments. Under GASB standards, the Permanent Fund does not have to sell the investment to count the gain or loss as it changes value. It is called "marking to market," that is, measuring the value of the fund's investments by the current market price. This can produce a much different picture than Permanent Fund statutory income, which does not reflect fluctuating investment values until the assets are sold.

Permanent Fund Statutory Income

The annual Permanent Fund dividend is based on statutory income. This is the sum of realized gains and losses of all Permanent Fund investment transactions during the year, plus interest, dividends and rents earned by the fund. The Legislature may appropriate the earnings for any purpose it chooses. The historical practice has been to use realized income primarily for dividends and inflation-proofing, and then either leave the excess in the realized earnings account, or transfer it to the principal of the Permanent Fund.

Restricted Program Receipts

This revenue is earmarked in state statute or by contract for specific purposes and is usually appropriated back to the program that generated the revenue. Examples include University of Alaska tuition payments, marine highway receipts, payments to various revol-

ing loan funds, and public corporation receipts. Some of this revenue is actually dedicated as a consequence of provisions of the Alaska Constitution. The remainder, while statutorily earmarked, may be appropriated to purposes other than those reflected in statute if the Legislature so chooses. These earmarked funds are categorized as designated general funds.

Restricted Revenue

Restricted revenue represents revenue that is restricted by the Alaska Constitution, state or federal law, trust or debt restrictions, or by customary practice. The Legislature can at any time remove restrictions that are solely imposed by either Alaska statute or customary practice. Program receipts, revenue allocated to sub-accounts of the general fund, and general fund revenue customarily shared with other entities are all considered restricted revenue for the purposes of this report. In this report, the department presents three categories of restricted revenue: designated general fund revenue, other restricted state revenue, and federal revenue.

Revenue Available for Current-Year Appropriation

All revenue that is technically available for the Legislature to appropriate, regardless of customary practice. Includes General Fund Unrestricted Revenue, Designated General Fund Revenue, deposits to and earnings from the CBRF, a portion of deposits to the Permanent Fund, and realized earnings from the Permanent Fund.

Abbreviations

bbls – barrels of oil
\$/bbl – dollars per barrel of oil
bbls/day – barrels of oil per day

Acronyms

ACES – Alaska’s Clear and Equitable Share
ANS – Alaska North Slope
GVR – gross value reduction
LNG – liquefied natural gas
SB21 – Senate Bill 21, passed in 2013
TAPS – Trans-Alaska Pipeline System

Unrestricted General Fund Revenue Matrices

Revenue sensitivity to oil price

Millions of Dollars

FY 2016		FY 2017		FY 2018	
At forecasted ANS production of 500,200 barrels per day		At forecasted ANS production of 504,900 barrels per day		At forecasted ANS production of 497,700 barrels per day	
Alaska North Slope Dollars per Barrel ¹	Unrestricted General Fund Revenue	Alaska North Slope Dollars per Barrel	Unrestricted General Fund Revenue	Alaska North Slope Dollars per Barrel	Unrestricted General Fund Revenue
\$30	\$1,080	\$30	\$1,040	\$30	\$1,060
\$40	\$1,260	\$40	\$1,200	\$40	\$1,220
\$49.58	\$1,593	\$50	\$1,590	\$50	\$1,580
\$50	\$1,620	\$56.24	\$1,796	\$60	\$1,950
\$60	\$1,990	\$60	\$1,990	\$62.73	\$2,021
\$70	\$2,380	\$70	\$2,240	\$70	\$2,200
\$80	\$3,180	\$80	\$2,600	\$80	\$2,550
\$90	\$4,030	\$90	\$3,300	\$90	\$3,130
\$100	\$4,980	\$100	\$4,150	\$100	\$3,960
\$110	\$5,820	\$110	\$5,010	\$110	\$4,790
\$120	\$6,770	\$120	\$5,880	\$120	\$5,630
\$130	\$7,620	\$130	\$6,740	\$130	\$6,480

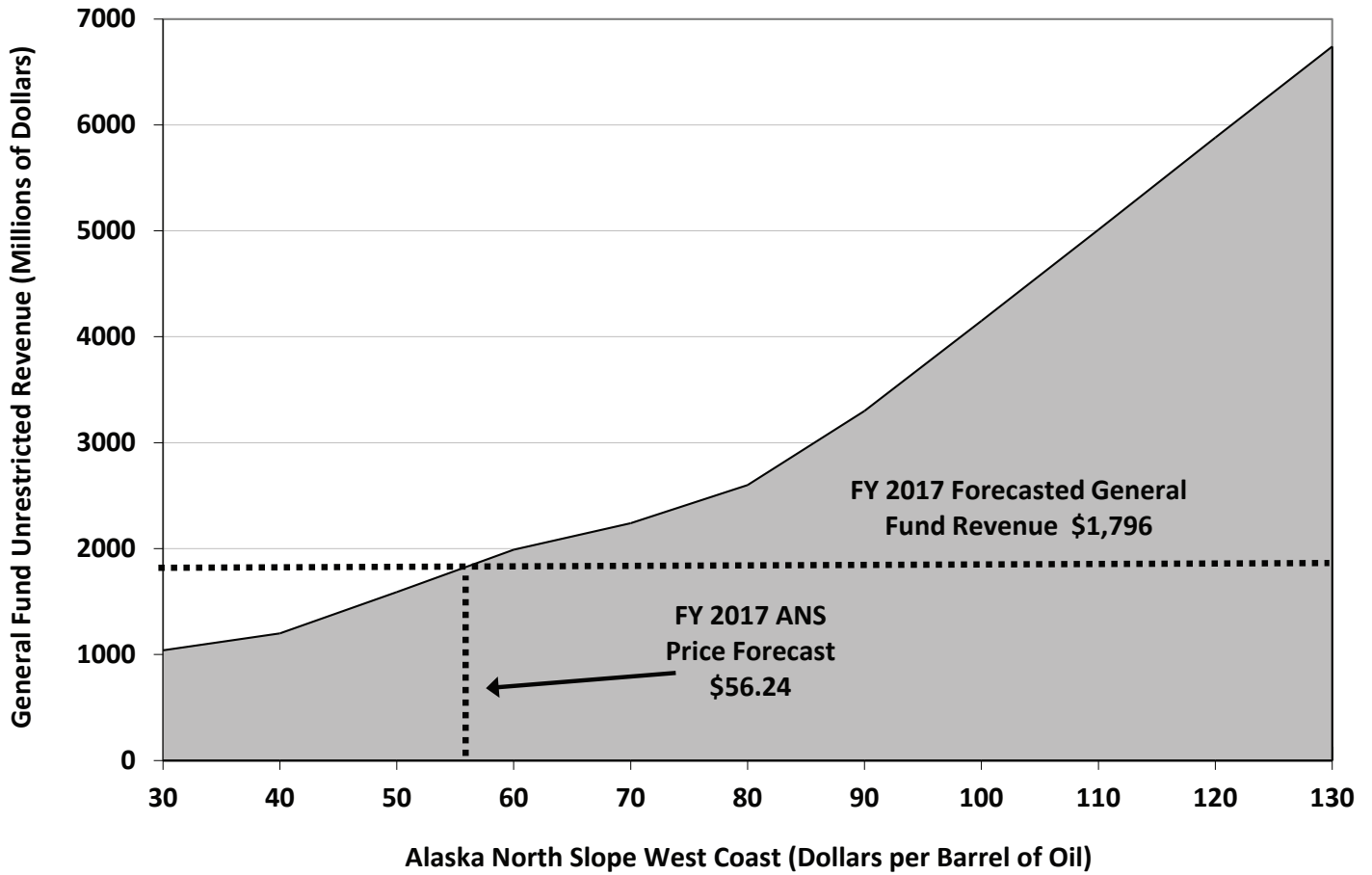
¹ Alaska North Slope dollars per barrel values are fiscal-year averages that incorporate actual prices for the first four months of FY 2016. Because oil prices averaged \$50.37 for the first four months, it can take a different price for the remainder of the year to bring the fiscal-year average to levels in the table. For example, a fiscal-year price of \$70 per barrel would require eight months of oil prices around \$80 per barrel.

Note:

This table presents estimated General Fund Unrestricted Revenue at a range of ANS prices, holding all other variables constant. Analysis assumes that the given price is in place for all three years shown. Only production tax, royalties, and corporate income tax are adjusted for purposes of this analysis. Users should be cautioned that changes in any number of variables may cause revenue to vary significantly from amounts shown. These variables include but are not limited to production, lease expenditures, and netback costs. In addition, revenues may vary from the amount shown due to changes in company decision-making, company-specific tax calculation issues, month-to-month variations in price or production, and changes in non-oil revenue.

GFUR Relative to Price per Barrel

Price sensitivity for FY 2017



History of Unrestricted General Fund Revenue¹

By type and category

Millions of Dollars

Fiscal Year	History									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Unrestricted General Fund Tax Revenue										
Petroleum Property Tax	54.5	65.6	81.5	111.2	118.8	110.6	111.2	99.3	128.1	125.2
Excise Tax										
Alcoholic Beverages	17.6	17.1	20.0	19.5	19.5	19.4	19.4	19.8	18.3	17.7
Tobacco Products	35.4	43.8	44.9	46.6	45.1	46.5	45.6	44.8	42.8	40.5
Insurance Premium	44.3	46.5	47.1	45.5	50.4	49.6	54.8	52.4	54.6	59.1
Electric and Telephone Cooperative	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.2
Motor Fuel Tax	42.0	39.2	41.8	10.1	28.8	39.5	40.9	41.9	41.9	41.8
Vehicle Rental tax	7.7	8.0	8.5	8.0	7.3	8.3	8.5	8.4	8.3	9.7
Tire Fee	1.6	1.5	1.5	1.5	1.4	1.5	1.4	1.4	1.3	1.5
Total Excise Tax	148.8	156.3	164.0	131.3	152.6	164.9	170.8	168.9	167.5	170.5
Income Tax										
General Corporate	138.0	176.9	182.7	120.9	81.9	157.7	98.5	112.5	99.9	136.2
Petroleum Corporate	661.1	594.4	605.8	492.2	446.1	542.1	568.8	434.6	307.6	94.8
Total Income Tax	799.1	771.3	788.5	613.1	528.0	699.8	667.3	547.1	407.5	231.0
Oil and Gas Production										
Oil and Gas Production Tax	1,191.7	2,198.3	6,810.9	3,100.9	2,860.7	4,543.2	6,136.7	4,042.5	2,605.9	381.6
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Gas Hazardous Release	7.8	10.1	11.7	11.1	10.3	9.7	9.4	7.8	8.8	8.1
Total Oil and Gas Production	1,199.5	2,208.4	6,822.6	3,112.0	2,871.0	4,552.9	6,146.1	4,050.3	2,614.7	389.7
Fish Tax										
Fisheries Business Tax	15.4	17.1	14.7	19.3	14.0	20.1	26.4	19.2	25.1	21.3
Fish Landing	4.7	5.3	7.9	4.7	8.3	2.7	6.3	5.5	7.1	5.1
Total Fish Tax	20.1	22.4	22.6	24.0	22.3	22.8	32.7	24.7	32.2	26.4
Other Tax										
Estate	0.6	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Mining	18.6	79.1	54.4	15.5	29.7	49.0	40.7	46.7	23.3	38.6
Charitable Gaming	2.4	2.5	2.7	2.8	2.6	2.5	2.6	2.5	2.5	2.5
Large Passenger Vessel Gambling	0.0	0.0	0.0	0.0	6.3	5.8	5.2	6.0	6.7	6.6
Total Other Tax	21.6	81.7	57.1	18.5	38.6	57.3	48.5	55.2	32.5	47.7
Total Unrestricted General Fund Tax Revenue	2,243.6	3,305.7	7,936.3	4,010.1	3,731.3	5,608.3	7,176.6	4,945.5	3,382.5	990.5

(Table continued, next page)

History of Unrestricted General Fund Revenue¹

By type and category (Continued)

Millions of Dollars

Fiscal Year	History									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Unrestricted General Fund Non-Tax Revenue										
Licenses and Permits	41.0	42.0	38.9	35.5	39.5	42.8	42.3	41.9	42.7	34.4
Intergovernmental Receipts										
Federal Shared Revenues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Charges for Services	21.8	28.5	29.3	19.3	17.1	18.5	29.2	25.2	24.2	20.1
Fines and Forfeitures	8.5	7.8	8.9	10.5	10.4	7.0	10.9	15.8	11.3	12.4
Rents and Royalties										
Oil and Gas Royalties ²	1,772.2	1,583.8	2,420.6	1,451.2	1,469.0	1,821.3	2,022.8	1,748.4	1,685.0	1,052.1
Oil and Gas Bonuses, Rents, Interest ^{2,3}	11.9	29.2	25.5	14.4	8.0	22.0	8.9	19.4	27.4	26.1
Other ⁴	8.8	11.8	14.6	15.6	13.2	17.6	20.4	24.7	34.5	36.3
Total Rents and Royalties	1,792.9	1,624.8	2,460.7	1,481.2	1,490.2	1,860.9	2,052.1	1,792.5	1,746.9	1,114.5
Investment Earnings	53.3	140.1	227.9	247.6	184.0	96.3	107.8	28.1	130.2	47.9
Miscellaneous Revenue⁵	39.3	9.7	26.2	27.0	40.8	39.1	66.3	79.5	52.3	37.5
Total Unrestricted General Fund Non-Tax Revenue	1,956.8	1,852.9	2,791.9	1,821.1	1,782.0	2,064.6	2,308.6	1,983.0	2,007.6	1,266.8
Total Unrestricted General Fund Revenue	4,200.4	5,158.6	10,728.2	5,831.2	5,513.3	7,672.9	9,485.2	6,928.5	5,390.1	2,257.3

¹ Unrestricted General Fund Revenue includes that revenue that is not restricted by statute or custom, as reported elsewhere in this publication. A summary of historical Unrestricted General Fund Revenue can be found on the Tax Division's website at www.tax.alaska.gov/sourcesbook/General-FundUnrestrictedRevenueHistory.pdf.

² Net of Permanent Fund, Public School Trust Fund, and Constitutional Budget Reserve Fund deposits.

³ This category is primarily composed of petroleum revenue.

⁴ Includes non-petroleum rents and royalties.

⁵ Starting in FY 2010, dividends and payments from state-owned corporations are included in unrestricted miscellaneous revenue.

Petroleum Revenue

By restriction and type

Millions of Dollars

History¹

Fiscal Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Unrestricted Petroleum Revenue										
Petroleum Property Tax	54.5	65.6	81.5	111.2	118.8	110.6	111.2	99.3	128.1	125.2
Petroleum Corporate Income Tax	661.1	594.4	605.8	492.2	446.1	542.1	568.8	434.6	307.6	94.8
Production Tax	1,191.7	2,198.3	6,810.9	3,100.9	2,860.7	4,543.2	6,136.7	4,042.5	2,605.9	381.6
Oil and Gas Hazardous Release	7.8	10.1	11.7	11.1	10.3	9.7	9.4	7.8	8.8	8.1
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Gas Royalties ²	1,772.2	1,583.8	2,420.6	1,451.2	1,469.0	1,821.3	2,022.8	1,748.4	1,685.0	1,052.1
Bonuses, Rents and Interest ^{2,3}	11.9	29.2	25.5	14.4	8.0	22.0	8.9	19.4	27.4	26.1
Petroleum Special Settlements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Unrestricted Petroleum Revenue	3,699.2	4,481.4	9,956.0	5,181.0	4,912.9	7,048.9	8,857.8	6,352.0	4,762.8	1,687.9
Cumulative Total Petroleum Revenue ⁴	61,809	66,291	76,247	81,428	86,340	93,389	102,247	108,599	113,362	115,050
Restricted Petroleum Revenue										
NPR-A Rents, Royalties, Bonuses	4.5	12.8	5.2	14.8	21.3	3.0	4.8	3.6	6.8	3.2
Royalties to Permanent Fund	599.5	535.0	834.0	659.8	696.1	857.3	904.9	842.1	773.7	510.4
Royalties to Public School Trust Fund	12.0	10.6	16.5	11.0	11.1	13.6	14.7	13.8	12.5	7.9
Constitutional Budget Reserve Fund Deposits	43.7	101.9	476.4	202.6	552.7	167.3	102.1	176.6	141.4	149.0
Total Restricted Petroleum Revenue	659.7	660.3	1,332.1	888.2	1,281.2	1,041.2	1,026.5	1,036.1	934.4	670.5

(Table continued, next page)

Petroleum Revenue

By restriction and type *(Continued)*

Millions of Dollars

Forecast

Fiscal Year	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Unrestricted Petroleum Revenue										
Petroleum Property Tax	133.9	131.7	131.2	130.1	129.1	127.5	125.7	123.7	121.3	118.5
Petroleum Corporate Income Tax	105.0	160.0	195.0	205.0	200.0	205.0	200.0	195.0	195.0	195.0
Production Tax	163.9	179.5	268.6	288.3	288.0	311.4	300.6	280.8	287.1	295.7
Oil and Gas Hazardous Release	8.3	8.3	8.2	8.0	7.6	7.0	6.5	5.9	5.5	5.0
Oil and Gas Conservation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oil and Gas Royalties ²	637.6	745.0	827.1	888.2	856.4	871.3	830.5	781.1	740.1	698.5
Bonuses, Rents and Interest ^{2,3}	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
Petroleum Special Settlements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Unrestricted Petroleum Revenue	1,061.5	1,237.3	1,443.0	1,532.5	1,493.9	1,535.1	1,476.1	1,399.4	1,361.7	1,325.6
Cumulative Total Petroleum Revenue ⁴	116,111	117,349	118,792	120,324	121,818	123,353	124,829	126,229	127,590	128,916
Restricted Petroleum Revenue										
NPR-A Rents, Royalties, Bonuses	4.3	4.3	4.3	7.6	10.4	8.4	6.9	6.0	5.5	5.1
Royalties to Permanent Fund	283.0	326.3	362.2	394.6	381.1	378.7	354.4	329.1	309.2	289.8
Royalties to Public School Trust Fund	4.7	5.5	6.1	6.5	6.3	6.4	6.0	5.7	5.4	5.1
Constitutional Budget Reserve Fund Deposits	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Restricted Petroleum Revenue	312.0	356.1	392.5	428.8	417.7	413.4	387.4	360.8	340.0	319.9

¹ Historical petroleum revenue can be found on the Tax Division's website at www.tax.alaska.gov/sourcesbook/PetroleumRevenueHistory.pdf.

² Net of Permanent Fund, Public School Trust Fund, and CBRF deposits.

³ This category is primarily petroleum revenue.

⁴ Based on revenue beginning in FY 1959.

Unrestricted General Fund Revenue

Petroleum versus non-petroleum revenue

Millions of Dollars

History

Fiscal Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Unrestricted General Fund Revenue										
Total Unrestricted Petroleum Revenue	3,699.2	4,481.4	9,956.0	5,181.0	4,912.9	7,048.9	8,857.8	6,352.0	4,762.8	1,687.9
Unrestricted General Fund Non-Petroleum Revenue	501.2	677.2	772.2	650.2	600.4	624.0	627.4	576.5	627.3	569.4
Total Unrestricted General Fund Revenue	4,200.4	5,158.6	10,728.2	5,831.2	5,513.3	7,672.9	9,485.2	6,928.5	5,390.1	2,257.3
Percent of Total Unrestricted General Fund Revenue from Petroleum	88%	87%	93%	89%	89%	92%	93%	92%	88%	75%

(Table continued, next page)

Unrestricted General Fund Revenue

Petroleum versus non-petroleum revenue *(Continued)*

Millions of Dollars

Forecast

Fiscal Year	Forecast									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Unrestricted General Fund Revenue										
Total Unrestricted Petroleum Revenue	1,061.5	1,237.3	1,443.0	1,532.5	1,493.9	1,535.1	1,476.1	1,399.4	1,361.7	1,325.6
Unrestricted General Fund Non-Petroleum Revenue	531.4	559.1	578.0	597.6	617.4	638.2	655.7	677.2	698.9	720.5
Total Unrestricted General Fund Revenue	1,593.0	1,796.4	2,021.0	2,130.0	2,111.3	2,173.3	2,131.8	2,076.5	2,060.6	2,046.1
Percent of Total Unrestricted General Fund Revenue from Petroleum	67%	69%	71%	72%	71%	71%	69%	67%	66%	65%

Nominal Netback Costs, Actual and Forecast

By netback segment

Fiscal Year	Dollars per Barrel									
	History									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Alaska North Slope West Coast	62.12	61.60	96.51	68.34	74.90	94.49	112.65	107.57	107.57	72.58
Netback Costs¹										
Marine Costs	1.65	1.62	1.93	2.05	2.21	2.44	3.24	3.64	3.70	3.25
Taps Tariff	3.55	4.37	5.08	4.59	3.81	4.02	5.06	5.93	6.52	6.11
Feeder Tariff	0.30	0.45	0.31	0.31	0.31	0.29	0.31	0.35	0.38	0.42
Quality Bank	-0.24	-0.86	-1.26	-0.52	-0.41	-0.54	-0.68	-0.67	-0.59	-0.37
Other ²	0.17	-0.18	-0.01	-0.05	0.09	0.46	0.44	0.51	0.41	0.33
Total of Netback Costs	5.43	5.40	6.05	6.38	6.01	6.67	8.37	9.76	10.42	9.74
ANS Wellhead Weighted Average All Destinations	56.69	56.20	90.46	61.96	68.89	87.82	104.28	97.81	97.15	62.83

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Nominal Netback Costs, Actual and Forecast

By netback segment (*Continued*)

Fiscal Year	Dollars per Barrel									
	Forecast									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Alaska North Slope West Coast	49.58	56.24	62.73	68.95	71.05	77.68	80.00	81.80	84.53	87.35
Netback Costs³										
Marine Costs	3.28	3.37	3.47	3.55	3.60	3.70	3.75	3.80	3.86	3.92
Taps Tariff	6.41	6.73	6.92	7.23	7.73	8.45	9.29	10.22	11.29	12.47
Feeder Tariff	0.42	0.54	0.55	0.56	0.59	0.65	0.71	0.77	0.84	0.93
Quality Bank	0.21	0.23	0.26	0.28	0.29	0.32	0.33	0.34	0.35	0.37
Other ²	0.25	0.28	0.31	0.33	0.34	0.38	0.39	0.40	0.41	0.43
Total of Netback Costs	10.56	11.16	11.51	11.96	12.56	13.49	14.46	15.53	16.76	18.11
ANS Wellhead Weighted Average All Destinations	39.02	45.08	51.22	56.99	58.49	64.19	65.54	66.27	67.77	69.24

¹ Costs reported here are meant to be average costs for barrels that incurred the transportation expense. For example, marine costs should represent the average for barrels shipped on a tanker, not the average for all barrels sold. The Department of Revenue's data sources are variable and the department has not been able to confirm that this is the case for all years.

² Primarily tanker and pipeline losses.

³ Forecasted transportation costs for barrels that incurred the transportation expense. For example, marine costs represent the average for barrels shipped on a tanker, not the average for all barrels sold.

Source: Data maintained by Alaska Department of Revenue, Tax Division, Economic Research Section. The department attempts to use a consistent methodology when reporting data. However, data sources and formats have changed over time making consistent comparison of data potentially difficult.

Price Difference

Spring 2015 forecast and Fall 2015 forecast

Fiscal Year	Dollars per Barrel									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Spring 2015 Forecast										
ANS West Coast	67.49	66.03	86.66	89.06	97.51	109.54	112.61	114.92	119.61	124.34
ANS Wellhead Weighted Average All Destinations	58.08	56.75	77.04	79.14	87.01	98.40	100.72	102.18	105.94	109.63
Fall 2015 Forecast										
ANS West Coast	72.58	49.58	56.24	62.73	68.95	71.05	77.68	80.00	81.80	84.53
ANS Wellhead Weighted Average All Destinations	62.83	39.02	45.08	51.22	56.99	58.49	64.19	65.54	66.27	67.77
Dollar Amount Change from Prior Forecast										
ANS West Coast	5.09	-16.45	-30.42	-26.33	-28.56	-38.49	-34.93	-34.92	-37.81	-39.81
ANS Wellhead Weighted Average All Destinations	4.75	-17.73	-31.96	-27.92	-30.02	-39.91	-36.53	-36.64	-39.67	-41.86
Percent Change from Prior Forecast										
ANS West Coast	7.5%	-24.9%	-35.1%	-29.6%	-29.3%	-35.1%	-31.0%	-30.4%	-31.6%	-32.0%
ANS Wellhead Weighted Average All Destinations	8.2%	-31.2%	-41.5%	-35.3%	-34.5%	-40.6%	-36.3%	-35.9%	-37.4%	-38.2%

Production Difference

Spring 2015 forecast and Fall 2015 forecast

Thousand Barrels per Day

Fiscal Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Spring 2015 Forecast										
Alaska North Slope	508.0	519.5	535.5	506.6	469.9	440.1	406.6	374.1	348.8	320.3
Non-North Slope	16.9	14.7	13.0	11.7	10.6	9.7	8.9	8.2	7.6	7.0
Total	524.9	534.2	548.5	518.3	480.5	449.8	415.5	382.4	356.4	327.4
Fall 2015 Forecast										
Alaska North Slope	501.5	500.2	504.9	497.7	487.6	460.5	423.9	391.1	359.8	329.2
Non-North Slope	18.0	17.8	16.1	14.7	13.5	12.5	11.7	10.9	10.2	9.6
Total	519.5	518.0	521.0	512.4	501.1	473.0	435.5	402.0	370.0	338.7
Volume Change from Prior Forecast										
Alaska North Slope	-6.5	-19.3	-30.6	-8.9	17.7	20.4	17.3	17.0	11.0	8.9
Non-North Slope	1.1	3.1	3.1	3.0	2.9	2.8	2.8	2.6	2.6	2.5
Total	-5.4	-16.2	-27.5	-5.9	20.6	23.2	20.0	19.6	13.6	11.4
Percent Change from Prior Forecast										
Alaska North Slope	-1.3%	-3.7%	-5.7%	-1.8%	3.8%	4.6%	4.2%	4.5%	3.2%	2.8%
Non-North Slope	6.5%	21.0%	24.0%	25.7%	27.7%	29.4%	31.1%	32.2%	33.9%	35.9%
Total	-1.0%	-3.0%	-5.0%	-1.1%	4.3%	5.2%	4.8%	5.1%	3.8%	3.5%

Annual Average Daily Crude Oil Production

By production area

Thousand Barrels per Day

Fiscal Year	History									
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Alaska North Slope										
Prudhoe Bay ^{1,2}	335.4	270.8	291.1	291.4	276.7	267.6	265.2	247.4	247.6	228.6
PBU Satellites ^{1,3}	82.1	75.7	67.5	67.9	63.1	55.4	50.7	46.5	44.3	41.5
GPMA ⁴	47.5	36.9	44.3	38.5	34.0	30.8	29.7	26.3	26.2	22.3
Kuparuk	132.0	121.4	112.6	105.6	99.2	91.0	91.5	86.4	86.0	78.8
Kuparuk Satellites ⁵	43.3	43.8	36.5	37.0	35.0	31.9	27.5	25.3	25.1	26.5
Endicott ⁶	20.5	16.4	14.1	14.2	12.7	11.7	11.3	10.4	9.5	9.4
Alpine ⁷	123.4	124.4	114.9	106.7	93.5	84.6	78.2	64.5	56.8	47.8
Offshore ⁸	55.4	44.9	34.4	31.5	28.4	27.0	25.2	24.8	35.4	46.5
NPR-A ⁹	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Point Thomson ⁹	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Alaska North Slope	839.7	734.2	715.4	692.8	642.6	599.9	579.3	531.6	531.1	501.5
Cook Inlet	18.3	16.1	13.9	10.1	8.9	10.4	10.7	12.2	15.8	18.0
Total Alaska	858.0	750.4	729.4	702.9	651.5	610.3	590.0	543.8	546.9	519.5

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Annual Average Daily Crude Oil Production

By production area *(Continued)*

Thousand Barrels per Day

Fiscal Year	Forecast									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Alaska North Slope										
Prudhoe Bay	229.7	228.4	225.6	218.0	206.8	194.5	183.5	171.0	156.6	144.1
PBU Satellites ³	41.2	38.3	35.6	32.5	29.8	27.4	25.2	23.4	21.7	20.2
Greater Point McIntyre Area ⁴	20.1	18.3	16.8	15.3	14.0	12.8	11.8	11.0	10.2	9.5
Kuparuk	83.9	84.4	81.1	80.0	75.9	72.2	68.4	63.5	59.4	55.6
Kuparuk Satellites ⁵	28.5	28.7	29.0	29.4	27.0	25.2	22.7	21.3	19.8	17.9
Endicott ⁶	8.3	7.5	6.9	6.3	5.8	5.4	5.0	4.6	4.3	4.0
Alpine ⁷	45.2	47.0	54.1	49.2	46.5	41.1	36.3	32.3	28.9	26.0
Offshore ⁸	41.6	42.3	39.3	44.5	39.8	33.7	28.7	24.7	21.5	18.7
NPR-A	0.0	0.0	0.0	3.9	6.9	4.2	2.7	1.7	1.2	0.8
Point Thomson	1.6	9.9	9.4	8.6	7.9	7.3	6.7	6.2	5.7	5.2
Total Alaska North Slope	500.2	504.9	497.7	487.6	460.5	423.9	391.1	359.8	329.2	302.1
Cook Inlet	17.8	16.1	14.7	13.5	12.5	11.7	10.9	10.2	9.6	9.0
Total Alaska	518.0	521.0	512.4	501.1	473.0	435.5	402.0	370.0	338.7	311.1

¹ Milne Point Unit production is now being reported with PBU Satellites instead of with PBU volume. Historical volumes will, therefore, not match the Fall 2011 RSB.

² Includes NGLs from Central Gas Facility shipped to TAPS.

³ Aurora, Borealis, Midnight Sun, Orion, Polaris, Milne Point, Sag River, Schrader Bluff, Ugnu.

⁴ Lisburne, Niakuk, Point McIntyre, Raven, West Beach, West Niakuk.

⁵ Meltwater, NEWS, Tabasco, Tarn, West Sak.

⁶ Endicott, Minke, Sag Delta, Eider, Badami.

⁷ Alpine, Fiord, Nanuq, Qannik, Mustang (after 2016).

⁸ Northstar, Oooguruk, Nikaitchuq, Liberty (delayed).

⁹ Not in production.

NOTE: Totals may show slight differences from other sources due to rounding and aggregation differences.

Lease Expenditures

Operating and capital expenditures by geographic region

Fiscal Year	Millions of Dollars							
	History							
	2008	2009	2010	2011	2012	2013	2014	2015
North Slope Lease Expenditures								
Operating Expenditures [OPEX]	2,027	2,085	2,270	2,614	3,001	3,110	3,254	3,439
Capital Expenditures [CAPEX]	1,953	2,212	2,389	2,317	2,383	2,969	3,738	3,992
Total North Slope Lease Expenditures	3,980	4,297	4,659	4,931	5,385	6,079	6,992	7,431
Non-North Slope (includes Cook Inlet)								
Operating Expenditures [OPEX]	279	201	165	191	245	261	252	242
Capital Expenditures [CAPEX]	247	341	168	123	350	415	595	640
Total Non-North Slope Lease Expenditures	526	542	332	314	594	676	848	881
Total Statewide Lease Expenditures								
Operating Expenditures [OPEX]	2,306	2,286	2,435	2,805	3,246	3,370	3,506	3,680
Capital Expenditures [CAPEX]	2,200	2,553	2,557	2,440	2,733	3,384	4,333	4,632
Total Statewide Lease Expenditures	4,506	4,839	4,991	5,245	5,979	6,754	7,839	8,312

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Lease Expenditures

Operating and capital expenditures by geographic region *(Continued)*

Millions of Dollars

Fiscal Year	Forecast									
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
North Slope Lease Expenditures										
Operating Expenditures [OPEX]	3,233	3,141	3,261	3,287	3,264	3,195	3,013	2,832	2,650	2,486
Capital Expenditures [CAPEX]	3,656	3,324	3,246	2,745	2,327	2,132	1,999	1,890	1,779	1,676
Total North Slope Lease Expenditures	6,889	6,465	6,507	6,032	5,592	5,327	5,012	4,723	4,429	4,162
Non-North Slope (includes Cook Inlet)										
Operating Expenditures [OPEX]	295	281	284	290	289	287	280	274	268	263
Capital Expenditures [CAPEX]	584	387	362	313	306	308	238	202	202	156
Total Non-North Slope Lease Expenditures	880	669	646	603	595	596	518	476	470	419
Total Statewide Lease Expenditures										
Operating Expenditures [OPEX]	3,528	3,422	3,545	3,577	3,553	3,483	3,293	3,106	2,918	2,749
Capital Expenditures [CAPEX]	4,241	3,712	3,608	3,058	2,634	2,440	2,237	2,092	2,981	1,832
Total Statewide Lease Expenditures	7,769	7,134	7,153	6,636	6,187	5,923	5,529	5,198	4,899	4,582

Production Tax Estimate for FY 2015

Using income statement format

Note: This table presents an approximation of the production tax calculation, and does not match production tax estimates throughout this publication.

	Price	Barrels (Thousands)	Value (Millions of Dollars)
Avg ANS Oil Price (\$/bbl) and Daily Production	\$72.58	501.5	\$36.4
Annual Production			
Total		183,048	\$13,285.2
Royalty, Federal and other barrels ¹		-24,445	(\$1,774.2)
Taxable barrels from companies with tax liability²		158,603	\$11,511.1
Downstream (Transportation) Costs (\$/bbl)			
ANS Marine Transportation	-\$3.25		
TAPS Tariff	-\$6.11		
Other	-\$0.38		
Total Transportation Costs	-\$9.74	158,603	(\$1,545.4)
Gross Value at Point of Production (GVPP)	\$62.83		\$9,965.64
Deductible Lease Expenditures³			
Deductible Operating Expenditures	-\$20.92		(\$3,318.6)
Deductible Capital Expenditures	-\$22.67		(\$3,595.8)
Total Lease Expenditures	-\$43.60	158,603	(\$6,914.4)
Production Tax			
Gross minimum tax (4%*GVPP)			\$398.6
Production Tax Value (PTV)			\$3,051.2
Gross Value Reduction (GVR)			(\$62.8)
Production Tax Value (PTV) after GVR			\$2,988.4
Base Tax (35%*PTV after GVR)			\$1,046.0
Total Tax before credits (base tax or minimum tax)			\$1,046.0
North Slope Credits applied against tax liability⁴			(\$655.0)
Estimated Total Tax after credits⁵			\$391.0

¹ Royalty, Federal and other barrels represents the Department of Revenue's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, barrels produced from federal offshore property, and barrels used in production. For purposes of this calculation, it also includes barrels produced by companies that are not expected to have a tax liability.

² This number does not represent all taxable barrels, only those produced by companies that are expected to have a tax liability.

³ Deductible Lease Expenditures represents the Department of Revenue's best estimate of lease expenditures that are applicable to companies that are likely to have a tax liability for the year. The per-barrel expenditures reflect expenditures per taxable barrel and do not reflect expenditures per all barrels produced.

⁴ Under SB21, some credits may reduce a producer's liability below the minimum tax; those provisions are reflected in these estimates. For more information on how specific tax credits may be applied, please see Chapter 8 of this publication.

⁵ Estimated Total Tax after credits is a calculated total based on constant daily production, constant oil prices, constant expenditures for the entire year, and no company-specific information. Variations in these assumptions captured in larger revenue models will produce results that differ from the estimates in the simple model above. Therefore, the estimate shown here will not exactly match the Department of Revenue's official revenue numbers published elsewhere in this book.

Production Tax Estimate for FY 2016

Using income statement format

Note: This table presents an approximation of the production tax calculation, and does not match production tax estimates throughout this publication.

	Price	Barrels (Thousands)	Value (Millions of Dollars)
Avg ANS Oil Price (\$/bbl) and Daily Production	\$49.58	500.2	\$24.8
Annual Production			
Total		183,087	\$9,077.8
Royalty, Federal and other barrels ¹		-23,067	(\$1,143.7)
Taxable barrels from companies with tax liability²		160,019	\$7,934.1
Downstream (Transportation) Costs (\$/bbl)			
ANS Marine Transportation	-\$3.28		
TAPS Tariff	-\$6.41		
Other	-\$0.87		
Total Transportation Costs	-\$10.56	160,019	(\$1,690.3)
Gross Value at Point of Production (GVPP)	\$39.02		\$6,243.80
Deductible Lease Expenditures³			
Deductible Operating Expenditures	-\$18.46		(\$2,954.1)
Deductible Capital Expenditures	-\$17.68		(\$2,828.4)
Total Lease Expenditures	-\$36.14	160,019	(\$5,782.4)
Production Tax			
Gross minimum tax (4%*GVPP)			\$249.8
Production Tax Value (PTV)			\$461.3
Gross Value Reduction (GVR)			(\$15.2)
Production Tax Value (PTV) after GVR			\$446.1
Base Tax (35%*PTV after GVR)			\$156.1
Total Tax before credits (base tax or minimum tax)			\$249.8
North Slope Credits applied against tax liability⁴			(\$105.0)
Estimated Total Tax after credits⁵			\$144.8

¹ Royalty, Federal and other barrels represents the Department of Revenue's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, barrels produced from federal offshore property, and barrels used in production. For purposes of this calculation, it also includes barrels produced by companies that are not expected to have a tax liability.

² This number does not represent all taxable barrels, only those produced by companies that are expected to have a tax liability.

³ Deductible Lease Expenditures represents the Department of Revenue's best estimate of lease expenditures that are applicable to companies that are likely to have a tax liability for the year. The per-barrel expenditures reflect expenditures per taxable barrel and do not reflect expenditures per all barrels produced.

⁴ Under SB21, some credits may reduce a producer's liability below the minimum tax; those provisions are reflected in these estimates. For more information on how specific tax credits may be applied, please see Chapter 8 of this publication.

⁵ Estimated Total Tax after credits is a calculated total based on constant daily production, constant oil prices, constant expenditures for the entire year, and no company-specific information. Variations in these assumptions captured in larger revenue models will produce results that differ from the estimates in the simple model above. Therefore, the estimate shown here will not exactly match the Department of Revenue's official revenue numbers published elsewhere in this book.

Production Tax Estimate for FY 2017

Using income statement format

Note: This table presents an approximation of the production tax calculation, and does not match production tax estimates throughout this publication.

	Price	Barrels (Thousands)	Value (Millions of Dollars)
Avg ANS Oil Price (\$/bbl) and Daily Production	\$56.24	504.9	\$28.4
Annual Production			
Total		184,274	\$10,363.6
Royalty, Federal and other barrels ¹		-25,092	(\$1,411.2)
Taxable barrels from companies with tax liability²		159,182	\$8,952.4
Downstream (Transportation) Costs (\$/bbl)			
ANS Marine Transportation	-\$3.37		
TAPS Tariff	-\$6.73		
Other	-\$1.05		
Total Transportation Costs	-\$11.16	159,182	(\$1,776.5)
Gross Value at Point of Production (GVPP)	\$45.08		\$7,175.84
Deductible Lease Expenditures³			
Deductible Operating Expenditures	-\$18.95		(\$3,017.0)
Deductible Capital Expenditures	-\$17.66		(\$2,810.5)
Total Lease Expenditures	-\$36.61	159,182	(\$5,827.5)
Production Tax			
Gross minimum tax (4%*GVPP)			\$287.0
Production Tax Value (PTV)			\$1,348.3
Gross Value Reduction (GVR)			(\$43.8)
Production Tax Value (PTV) after GVR			\$1,304.5
Base Tax (35%*PTV after GVR)			\$456.6
Total Tax before credits (base tax or minimum tax)			\$456.6
North Slope Credits applied against tax liability⁴			(\$285.0)
Estimated Total Tax after credits⁵			\$171.6

¹ Royalty, Federal and other barrels represents the Department of Revenue's best estimate of barrels that are not taxed. This estimate includes both state and federal royalty barrels, barrels produced from federal offshore property, and barrels used in production. For purposes of this calculation, it also includes barrels produced by companies that are not expected to have a tax liability.

² This number does not represent all taxable barrels, only those produced by companies that are expected to have a tax liability.

³ Deductible Lease Expenditures represents the Department of Revenue's best estimate of lease expenditures that are applicable to companies that are likely to have a tax liability for the year. The per-barrel expenditures reflect expenditures per taxable barrel and do not reflect expenditures per all barrels produced.

⁴ Under SB21, some credits may reduce a producer's liability below the minimum tax; those provisions are reflected in these estimates. For more information on how specific tax credits may be applied, please see Chapter 8 of this publication.

⁵ Estimated Total Tax after credits is a calculated total based on constant daily production, constant oil prices, constant expenditures for the entire year, and no company-specific information. Variations in these assumptions captured in larger revenue models will produce results that differ from the estimates in the simple model above. Therefore, the estimate shown here will not exactly match the Department of Revenue's official revenue numbers published elsewhere in this book.