TITLE: Spring 2010 Forecast

PREPARED BY: Department of Revenue, Tax Division

**PURPOSE:** To provide the Department's official Spring 2010 revenue forecast for FY 2010 and FY 2011.

DATA SOURCES: Department of Revenue Tax Division Reports and Forecast

**Treasury Division** 

Permanent Fund Corporation
Office of Management and Budget
Department of Natural Resources
Alaska State Accounting System

**ASSUMPTIONS:** The forecast assumes the tax laws in place as of March 31, 2010.

Production volumes are in millions of barrels per day for Alaska North Slope (ANS) only,

unless otherwise noted.

For FY 2010, we forecast production volume of 0.650 million barrels per day.

For FY 2011, we forecast production volume of 0.619 million barrels per day.

For FY 2009, we use nine months of actual prices and three months of the NYMEX futures as of March 12, 2010, for a WTI average of \$76.13. For FY 2011, we use a blend of the EIA's December 2009 forecast, the NYMEX as of March 12, 2010, the Fall 2009 Forecasting Session, and average Bloomberg analysts' forecast on March 12, 2010 for a WTI annual average of \$80.15.

ANS is forecasted to trade at a differential of \$2.50 below WTI for the remainder of FY 2010 and FY 2011 resulting in an annual average forecast for ANS of \$75.32 and \$77.65 respectively.

Other assumptions include the TAPS tariff and transportation costs required to estimate value at the wellhead, and the inflation rate.

Key data used to estimate the production tax are detailed in Figure 7 "Basic Data Used for Oil & Gas Production Taxes."

Historical data for FY 2009 may differ from previous forecasts as amendments and revisions may have been submitted since the last forecast.

Numbers may not add exactly due to rounding.

**DISCLAIMER:** The Department of Revenue uses an engineering consultant in conjunction with

assistance from the Department of Natural Resources and the Alaska Oil & Gas

Conservation Commission to derive its biannual production forecast.

The department may adjust its production expectations as we continue to examine reservoir performance, review the pace and scope of development of

new fields, and re-evaluate downtime.

Figure 1. Total State Government Revenue by Major Component, FY 2009 and Forecasted FY 2010-2011 \$ Million

\$ Million		_	_
	History <b>FY 2009</b>	Forecast FY 2010	Forecast FY 2011
OIL REVENUE	F1 2009	F1 2010	F1 2011
Unrestricted			
Property Tax	111.2	106.4	104.1
Corporate Petroleum Income Tax	492.2	390.0	500.0
Production Tax	3,112.0	2,943.3	2,492.2
Royalties (including Bonuses, Rents & Interest)	1,465.6	1,594.3	1,562.0
Subtotal	5,181.0	5,033.9	4,658.3
	2,	-,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Restricted  Royalties to Perm Fund & School Fund (includes Bonuses & Rents)	670.8	701.5	695.3
Tax Settlements to CBRF	202.6	506.3	20.0
NPR-A Royalties, Rents and Bonuses	202.0 14.8	16.0	20.0 <u>4.8</u>
Subtotal	888.2	1223.8	720.1
Subtotal	000.2	1223.0	720.1
Subtotal Oil Revenue	6,069.2	6,257.7	5,378.4
OTHER REVENUE (EXCEPT FEDERAL & INVESTMENT) Unrestricted			
Taxes	294.7	300.9	308.8
Charges for Services	19.3	23.3	23.3
Fines and Forfeitures	10.5	9.0	9.0
Licenses and Permits	35.5	40.5	38.8
Rents and Royalties	15.6	13.6	13.6
Other	<u>27.0</u>	<u>20.9</u>	20.9
Subtotal	402.6	408.2	414.4
Restricted			
Taxes	155.4	143.4	143.9
Charges for Services	250.9	252.9	266.5
Fines and Forfeitures	39.1	37.1	35.9
Licenses and Permits	34.7	39.2	39.5
Rents and Royalties	7.4	8.0	8.0
Other	<u>58.3</u>	<u>108.1</u>	<u>82.4</u>
Subtotal	545.8	588.7	576.2
Subtotal Other Revenue (Except Federal & Investment)	948.4	996.9	990.6

(continued on next page)

Figure 1. Total State Government Revenue by Major Component, FY 2009 and Forecasted FY 2010-2011 \$ Million

	History <b>FY 2009</b>	Forecast FY 2010	Forecast FY 2011
FEDERAL REVENUE (1)			
Restricted	<u>2,088.4</u>	3,046.0	<u>2,988.1</u>
Subtotal Federal Revenue	2,088.4	3,046.0	2,988.1
INVESTMENT REVENUE			
Unrestricted	a		
Investments	247.4	192.4	218.8
Interest Paid by Others	0.2	<u>1.4</u>	<u>1.4</u>
Subtotal	247.6	193.8	220.2
Restricted			
Investments	57.1	44.0	53.6
Constitutional Budget Reserve Fund	(526.6)	928.8	573.0
Other Treasury Managed Funds	(30.6)	53.4	26.4
Alaska Permanent Fund (GASB) (2)	(6,394.4)	2,241.0	<u>2,610.5</u>
Subtotal	(6,894.5)	3,267.2	3,263.6
Subtotal Investment	(6,646.9)	3,461.0	3,483.8
Grand Total	2,459.1	13,761.6	12,840.8

<sup>(1)</sup> Federal revenue estimates from the Governor's Office of Management and Budget are based upon state agency projections of potential federal revenues for FY 2010 and FY 2011. These estimates include any proposed use of federal funds from the American Recovery and Reinvestment Act as of March 31, 2010. It is important to note that the State of Alaska routinely budgets in excess of expected allotments.

<sup>(2)</sup> Both realized and unrealized gains and losses are included per GASB 34 as interpreted by the Finance Division of the Department of Administration in its Comprehensive Annual Financial Report.

Figure 2. Total State Government Revenue, FY 2009 and Forecasted FY 2010-2011 \$ Million

	History	Forecast	Forecast
Revenue Source	FY 2009	FY 2010	FY 2011
<u>Unrestricted</u>			
Oil Revenue	5,181.0	5,033.9	4,658.3
Non-Oil Revenue	402.6	408.2	414.4
Investment Earnings	<u>247.6</u>	<u> 193.8</u>	220.2
Subtotal	5,831.2	5,635.9	5,292.9
Restricted			
Oil Revenue	888.2	1,223.8	720.1
Non-Oil Revenue	545.8	588.7	576.2
Investment Earnings	(6,894.5)	3,267.2	3,263.6
Federal Revenue (1)	2,088.4	3,046.0	2,988.1
Subtotal	(3,372.1)	8,125.7	7,547.9
Grand Total	2,459.1	13,761.6	12,840.8

<sup>(1)</sup> Federal revenue estimates from the Governor's Office of Management and Budget are based upon state agency projections of potential federal revenues for FY 2010 and FY 2011. These estimates include any proposed use of federal funds from the American Recovery and Reinvestment Act as of March 31, 2010. It is important to note that the State of Alaska routinely budgets in excess of expected allotments.

Figure 3. Unrestricted Non-Petroleum Revenue Detail, FY 2009 and Forecasted FY 2010-2011 \$ Million

	History <b>FY 2009</b>	Forecast FY 2010	Forecast <b>FY 2011</b>
Taxes	294.7	300.9	308.8
Alcoholic Beverage	19.5	19.1	19.5
Charitable Gaming	2.8	2.7	2.7
Cigarette	36.4	35.4	34.0
Corporation General Income Tax	120.9	110.0	80.0
Electric and Telephone Cooperative	0.1	0.1	0.1
Estate	0.2	0.0	0.0
Fishery Business	19.3	15.1	17.4
Fishery Resource Landing	4.7	4.7	6.6
Insurance Premium	45.5	48.5	49.5
Mining	15.5	16.9	39.3
Motor Fuel Tax	10.1	30.0	40.3
Motor Vehicle Tire Fee	1.5	1.5	1.5
Other Tobacco Product (General Fund)	10.2	10.3	11.1
Vehicle Rental	8.0	6.6	6.8
Charges for Services	<u>19.3</u>	<u>23.3</u>	23.3
General Government	8.8	12.7	12.7
Natural Resources	2.0	2.1	2.1
Other	8.5	8.5	8.5
Fines and Forfeitures	10.5	9.0	9.0
Licenses and Permits	<u>35.5</u>	40.5	38.8
Alcoholic Beverage Licenses	1.0	1.0	1.0
Motor Vehicles	33.5	38.0	36.3
Other Fees	1.0	1.5	1.5
Rents and Royalties	<u>15.6</u>	<u>13.6</u>	<u>13.6</u>
Mining Rents and Royalties	7.4	7.4	7.4
Other Non-Petroleum Rents and Royalties	8.2	6.2	6.2
Other (Except Federal and Investment)	<u>27.0</u>	20.9	20.9
Miscellaneous	23.2	17.9	17.9
Unclaimed Property	3.8	3.0	3.0
Investments (1)	247.6	193.8	220.2
Interest Paid by Others (2)	0.2	1.4	1.4
Investments	247.4	192.4	218.8
Total Unrestricted Revenue	650.2	602.0	634.6

<sup>(1)</sup> Governmental Accounting Standards Board (GASB) principles require the recognition of changes in the value of investments as income or losses at the end of each trading day, whether the investment is actually sold or not.

<sup>(2)</sup> Interest paid by others includes "unrestricted interest earned" as reported in the state accounting system, less the amount attributable to oil and gas which is included in the petroleum section of the forecast. Interest paid by others includes several small categories of interest paid to the state including interest on loans, interest on bank deposits, interest on bid payments, arrearage interest, and other interest earned.

Figure 4. Restricted Non-Petroleum Revenue Detail, FY 2009 and Forecasted FY 2010-2011 \$ Million

\$ Million			
	History	Forecast	Forecast
	<u>FY 2009</u>	<u>FY 2010</u>	FY 2011
<u>Taxes</u>	<u>155.4</u>	<u>143.4</u>	<u>143.9</u>
Alcoholic Beverage (Alcohol and Drug Treatment)	19.0	19.0	19.5
Cigarette (School Fund)	23.1	23.8	22.9
Cigarette (Tobacco Use Cessation)	3.4	3.4	3.3
Cruise Ship Passenger Fee (Municipal Share)	9.9	9.3	8.5
Cruise Ship Passenger Fee (Regional Cruise Ship Impact Fund)	11.6	10.7	9.9
Cruise Ship Passenger Fee (State Share)	24.9	22.9	21.2
Dive Fishery Management Assessment	0.4	0.4	0.4
Electric and Telephone Cooperative (Municipal Share)	4.0	4.1	4.2
Fisheries Business (Municipal Share)	22.9	17.6	19.9
Fishery Resource Landing (Municipal Share)	6.3	5.3	7.2
Insurance Premium/ Other (Worker's Safety and Compensation) (1)	6.8	6.8	6.5
Large Passenger Vessel Gambling	6.3	6.0	5.5
Motor Fuel Tax-Aviation (Municipal Share)	0.1	0.1	0.1
Salmon Enhancement (Aquaculture Association Share)	5.8	5.5	5.1
Seafood Development (Qualifying Regional Association Share)	1.4	1.4	1.2
Seafood Marketing Assessment	8.9	7.1	8.5
Settlements to CBRF (Non-Petroleum)	0.6	0.0	0.0
Charges for Services	250.9	252.9	266.5
Cruise Ship Ranger Fee	3.9	3.4	3.4
DCCED Business Licenses	8.9	4.9	4.9
Environmental Compliance Fees	1.2	1.0	1.0
General Government	17.0	2.1	2.1
Marine Highway Receipts	46.2	49.0	52.4
Natural Resources	0.5	2.2	2.2
Oil and Gas Conservation	4.6	5.5	5.6
RCA Receipts	9.1	9.7	9.8
Receipt Supported Services	124.7	106.8	116.8
Statutorily Designated	33.2	65.0	65.0
Test Fisheries Receipts	1.0	2.5	2.5
Timber Sale Receipts	0.6	0.8	0.8
Fines and Forfeitures	39.1	37.1	35.9
Tobacco Settlement (Northern Tobacco Securitization Corporation)	29.8	27.7	26.7
Tobacco Settlement (Tobacco Use Education& Cessation Fund)	7.5	6.9	6.7
Other Fines and Forfeitures	1.8	2.5	2.5
Licenses and Permits	34.7	39.2	39.5
Alcoholic Beverage License (Municipal Share)	0.8	0.9	0.9
Hunting and Fishing	29.4	33.8	34.1
Other Fees	4.5	4.5	4.5
Rents and Royalties	<u>7.4</u>	<u>8.0</u>	<u>8.0</u>
Mining Rents and Royalties	3.3	3.3	3.3
Other Non-Petroleum Rents and Royalties	4.1	4.7	4.7
Other (Except Federal and Investment)	<u>58.3</u>	<u>108.1</u>	82.4
Alaska Energy Authority	0.0	0.0	0.0
Alaska Housing Finance Corporation	12.4	62.5	36.4
Alaska Industrial Development & Export Authority	5.8	22.7	23.1
Alaska Municipal Bond Bank Authority	0.5	0.8	8.0
Alaska Student Loan Corporation	7.5	0.0	0.0
Miscellaneous	32.1	22.1	22.1
<u>Federal</u>	2,088.4	3,046.0	2,988.1
Investments (2)			
Alaska Permanent Fund	(6,894.5) (6,394.4)	3,267.2 2,241.0	3,263.6 2,610.5
Constitutional Budget Reserve Fund	(526.6)	928.8	573.0
Investments	57.1	44.0	53.6
Other Treasury Managed Funds	(30.6)	53.4	26.4
Total Restricted Revenue	(4,260.3)	6,901.9	6,827.8

<sup>(1)</sup> In addition to the worker's compensation insurance premiums for the Insurance Premium Tax, this amount also includes services fees from employers who are self-insured.

<sup>(2)</sup> Governmental Accounting Standards Board (GASB) principles require the recognition of changes in the value of investments as income or losses at the end of each trading day, whether the investment is actually sold or not.

Figure 5. Alaska North Slope Production, FY 2009 and Forecasted FY 2010-2019 (1) Million barrels/day

	Currently	Under	Under	
Fiscal Year	Producing	Development	Evaluation	Total ANS
2009	0.693	0.000	0.000	0.693
2010	0.639	0.011	0.000	0.650
2011	0.556	0.063	0.000	0.619
2012	0.498	0.112	0.003	0.614
2013	0.447	0.163	0.007	0.618
2014	0.415	0.196	0.014	0.626
2015	0.380	0.215	0.028	0.623
2016	0.348	0.213	0.044	0.605
2017	0.319	0.216	0.054	0.589
2018	0.294	0.209	0.058	0.561
2019	0.271	0.197	0.055	0.523

Figure 6. New Oil as a Percentage of Total Oil (2) Million barrels/day

			Percent New
Fiscal Year	Total New Oil	ANS Total	Oil
2010	0.011	0.650	1.8%
2011	0.063	0.619	10.2%
2012	0.116	0.614	18.8%
2013	0.171	0.618	27.6%
2014	0.211	0.626	33.7%
2015	0.242	0.623	38.9%
2016	0.257	0.605	42.5%
2017	0.270	0.589	45.8%
2018	0.267	0.561	47.6%
2019	0.252	0.523	48.1%

<sup>(1)</sup> Some of the oil forecasted in the Under Development and Under Evaluation categories are from new projects in fields currently producing.

<sup>(2) &</sup>quot;New Oil" is the sum of the Under Development and Under Evaluation categories.

Figure 7. Basic Data Used for Oil & Gas Production Taxes

	FY 2009 History	FY 2010 Forecast	FY 2011 Forecast
State Production Tax Revenue			
Millions of Dollars	3,112.0	2,943.2	2,492.2
Key Assumptions			
Price of ANS WC in dollars per barrel	68.34	75.32	77.65
Transit Costs & Other in dollars per barrel	6.48	5.79	5.83
ANS Wellhead in dollars per barrel	61.86	69.53	71.82
Production in barrels per day	692,127	650,018	619,062
Royalty and Federal barrels per day	93,664	94,039	95,379
Taxable barrels per day	598,463	555,979	523,683
Lease Expenditures in \$millions			
Operating Expenditures (Opex)	2,085	2,202	2,121
Capital Expenditures (Capex)	2,212	2,430	2,945
Total Expenditures	4,297	4,632	5,066
Estimated and Implied Data			
Credits Used against Tax Liability in \$millions	350.0	350.0	400.0
Credits for Potential Purchase in \$millions	200.0	250.0	200.0
Lease Expenditures per barrel of oil produced			
Opex	8.3	9.3	9.4
Capex	8.8	10.2	13.0
Total Expenditures	17.0	19.5	22.4
Average Production Value per Barrel (Pre-Tax)	44.9	50.0	49.4
Production Tax Collected per Taxable Barrel	14.2	14.5	13.0

#### **Notes**

This table presents a grossly simplified snapshot of the production tax calculation on an average North Slope basis, and any use of this data should be viewed accordingly. Additionally, because production tax is calculated on a company

- basis, any simplification such as this distorts the actual value to companies. For example, a company's pre-tax production value per barrel could be significantly more or less than that shown in this table, depending on the "mix" of petroleum investments they have on the North Slope.
- 2 Lease expenditures for FY 2009 were prepared using unaudited company-reported expenditure estimates.
- Expenditure data for FY 2010 and FY 2011 are compiled from company submitted expenditure forecast estimates and other documentation as provided to the DOR.
- 4 CAPEX credits are spread out over two years as specified in the ACES production tax.
- Operating expenditures for Prudhoe Bay and Kuparuk units include the standard deduction provision per AS 43.55.165(j) through half of FY 2010.

Figure 8.
Crude Oil Production-Forecast, FY 2009 & Forecasted FY 2010-2019 (2) million barrels/day

FY	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Prudhoe Bay (2)	0.291	0.275	0.256	0.243	0.232	0.233	0.226	0.216	0.208	0.200	0.193
PBU Satellites (3)	0.037	0.037	0.038	0.045	0.045	0.044	0.042	0.039	0.036	0.033	0.030
GPMA (4)	0.038	0.037	0.033	0.030	0.027	0.024	0.022	0.020	0.019	0.017	0.016
Kuparuk	0.106	0.099	0.091	0.090	0.085	0.081	0.077	0.073	0.069	0.065	0.062
Kuparuk Satellites (5)	0.036	0.036	0.033	0.030	0.027	0.025	0.028	0.027	0.030	0.028	0.026
Milne Point (6)	0.031	0.029	0.029	0.030	0.030	0.030	0.029	0.027	0.026	0.024	0.022
Endicott (7)	0.014	0.014	0.012	0.011	0.013	0.015	0.017	0.018	0.016	0.015	0.013
Liberty	0.000	0.000	0.000	0.009	0.024	0.034	0.032	0.026	0.021	0.018	0.015
Alpine (8)	0.063	0.060	0.059	0.056	0.052	0.048	0.051	0.046	0.041	0.037	0.033
Fiord (9)	0.021	0.022	0.026	0.023	0.020	0.017	0.016	0.022	0.027	0.026	0.021
Nanuq (10)	0.022	0.013	0.009	0.007	0.008	0.008	0.007	0.006	0.005	0.005	0.004
NPR-A (11)		0.000	0.000	0.001	0.009	0.015	0.015	0.021	0.024	0.029	0.029
Offshore (12)	0.004	0.008	0.016	0.026	0.034	0.040	0.043	0.046	0.049	0.049	0.044
Pt.Thomson		0.000	0.000	0.000	0.000	0.002	0.010	0.010	0.010	0.010	0.010
Northstar (13)	0.027	0.020	<u>0.016</u>	0.013	<u>0.011</u>	0.010	0.009	800.0	0.007	0.006	0.006
Total ANS	0.693	0.650	0.619	0.614	0.618	0.626	0.623	0.605	0.589	0.561	0.523
Cook Inlet	0.013	0.012	0.011	0.010	0.009	0.009	800.0	0.008	0.007	0.007	0.006
Total Alaska	0.706	0.662	0.630	0.624	0.627	0.634	0.631	0.612	0.596	0.567	0.530

<sup>(1)</sup> FY 2009 volumes represent the department's annual forecast numbers, and do not include the most recent monthly reported data by

- (2) Includes NGLs from Central Gas Facility shipped to TAPS
- (3) Aurora, Borealis, Midnight Sun, Orion and Polaris
- (4) Lisburne, Niakuk, North Prudhoe Bay State, Point McIntyre, Raven, West Beach and West Niakuk
- (5) Meltwater, Tabasco, Tarn and West Sak
- (6) Includes Sag River and Schrader Bluff
- (7) Includes Badami, Eider and Sag Delta
- (8) Includes Qannik
- (9) Fiord, Fiord-Kuparuk, and Fiord West
- (10) Nanuq and Nanuq-Kuparuk
- (11) Includes Alpine West NPR-A
- (12) Known Offshore includes Nikaitchuq and Oooguruk
- (13) Includes OCS production.

Figure 9.
Crude Oil Prices, FY 2009 & Forecasted FY2010-2019

### **Nominal**

## WTI, ANS West Coast, ANS and Cook Inlet Wellhead Prices \$ per barrel

FY	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
WTI	69.71	76.13	80.15	85.88	89.35	91.73	94.19	96.71	99.30	101.96	104.70
ANS West Coast Spot	68.34	75.32	77.65	83.38	86.85	89.23	91.69	94.21	96.80	99.46	102.20
ANS Wellhead Wtd Average All Destinations	61.86	69.53	71.82	77.37	80.67	82.87	85.15	87.47	89.82	92.15	94.46
Cook Inlet Wellhead	62.51	73.44	75.78	81.52	85.01	87.41	89.88	92.41	95.01	97.68	100.43

## **Real 2010\$**

# WTI, ANS West Coast, ANS and Cook Inlet Wellhead Prices \$ per barrel

FY	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
WTI	68.72	76.13	78.00	81.34	82.36	82.30	82.24	82.18	82.13	82.07	82.02
ANS West Coast	67.37	75.32	75.57	78.97	80.06	80.06	80.06	80.06	80.06	80.06	80.06
ANS Wellhead Wtd Average All Destinations	60.98	69.53	69.90	73.28	74.36	74.35	74.35	74.33	74.29	74.17	73.99
Cook Inlet Wellhead	61.62	73.44	73.75	77.22	78.36	78.42	78.48	78.53	78.58	78.63	78.67

Figure 10. General Purpose Unrestricted Revenue, FY 2009 & Forecasted FY 2010-2019

#### \$ million

FY	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Corporate Petroleum Income Tax	492.2	390.0	500.0	565.0	610.0	625.0	635.0	645.0	655.0	665.0	690.0
Production Tax	3,112.0	2,943.3	2,492.2	2,532.1	2,915.4	3,207.3	3,362.7	3,172.5	3,105.8	3,076.8	3,043.2
Petroleum Property Tax	111.2	106.4	104.1	101.9	99.5	97.2	94.9	92.7	90.3	88.0	85.8
Oil and Gas Royalties-Net (1)	1,451.2	1,574.3	1,542.7	1,616.1	1,642.9	1,658.9	1,676.8	1,663.8	1,667.8	1,609.5	1,539.4
Bonuses, Rents & Interest-Net (1)(2)	14.4	20.0	19.3	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
Petroleum Special Settlements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Petroleum Revenue	5,181.0	5,033.9	4,658.3	4,831.7	5,284.4	5,605.0	5,786.0	5,590.5	5,535.6	5,455.9	5,375.0
Cumulative Total Petroleum Revenue (3)	80,781.2	85,815.1	90,473.4	95,305.1	100,589.6	106,194.6	111,980.6	117,571.2	123,106.7	128,562.6	133,937.6
Total General Purpose Unrestricted Revenue	5,831.2	5,635.9	5,292.9	5,473.1	5,924.3	6,245.4	6,435.6	6,250.1	6,203.8	6,141.7	6,064.6
% Petroleum of Total GP Unrestricted Revenue	89%	89%	88%	88%	89%	90%	90%	89%	89%	89%	89%

<sup>(1)</sup> Royalties, bonuses, rents and interest are net of Permanent Fund contribution and Constitutional Budget Reserve Fund (CBRF) deposits.

<sup>(2)</sup> This category is primarily composed of petroleum revenue.

<sup>(3)</sup>The cumulative petroleum revenue total is based on revenue beginning in FY 1959.