U. S. MINERAL ROYALTIES

Revenue Description

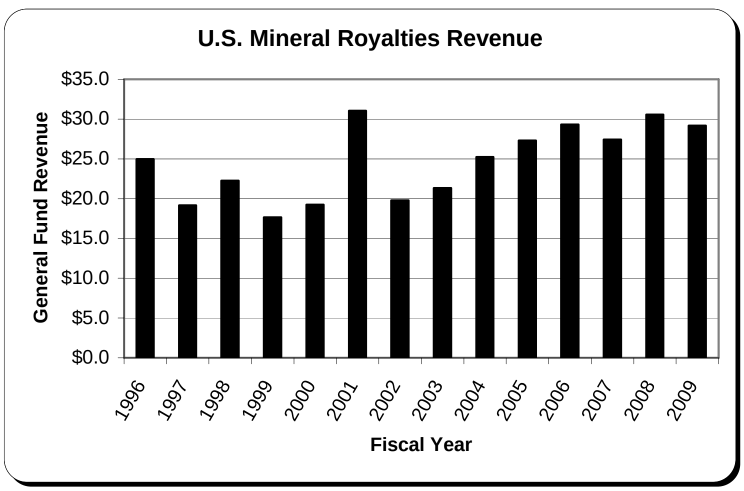
A portion of the minerals produced in Montana are derived from federal land. When the U.S. government leases public lands for mineral production, it pays part of the income to the state where the leased land is located. Montana receives 50% of the royalty revenue from coal, oil, and natural gas production on federal lands within the state. From this state share, 75% is deposited in the general fund and 25% is deposited in a state special revenue fund for mineral impacts.

Historical and Projected Revenue

Table 1 shows actual general fund revenue from U.S. mineral royalty disbursements for FY 1996 through FY 2006 and forecast revenue for FY 2007 through FY 2009.

Table 1
U.S. Mineral Royalties Revenue
($ millions)

Fiscal Year	Revenue	General Fund	Percent Change
A 1995	25.848	25.848	1.16%
A 1996	24.959	24.959	-3.44%
A 1997	19.161	19.161	-23.23%
A 1998	22.241	22.241	16.07%
A 1999	17.650	17.650	-20.64%
A 2000	19.243	19.243	9.02%
A 2001	31.008	31.008	61.14%
A 2002	19.772	19.772	-36.23%
A 2003	25.990	21.316	7.81%
A 2004	28.736	25.234	18.38%
A 2005	36.392	27.294	8.16%
A 2006	39.071	29.304	7.36%
F 2007	**36.556**	**27.417**	**-6.44%**
F 2008	**40.702**	**30.527**	**11.34%**
F 2009	**38.885**	**29.164**	**-4.47%**



Receipts in FY 2001 include approximately $8 million in payments for production in previous years that was collected due to audits. Without these audit collections, receipts would have been approximately $23 million. Receipts in FY 2002 should have been higher, but $1.7 million in royalties was paid late. This amount was recorded as an adjustment to the general fund ending balance rather than as revenue.

Prior to FY 2005, 12.5% of U.S. mineral royalty revenue was allocated to the counties. Currently, 25% of the U.S. mineral royalty revenue is allocated to counties. General fund revenue form U.S. mineral royalties fluctuates as mineral prices and production levels change. Changes in revenue for FY 2007 through FY 2009 are primarily attributable to price changes. Prices are generally forecast to decrease in FY 2007, increase in FY 2008, and again decrease in FY 2009.

Forecast Methodology and Projection Calculation

Royalty revenue is generated when minerals are produced on federal lands. The producing company pays the federal government a royalty to extract the mineral. The amount of the royalty is a percent of the taxable value. Taxable value is determined by multiplying the price paid for the mineral by the amount produced.

Ideally, estimates of federal production, price, and royalty rates would be used to project federal royalties. Due to lack of data and information about mineral production on federal land, most royalties are estimated using price fluctuations while assuming production is similar to production during the previous five years. The exception is coal, because additional information from the coal severance tax survey of Montana coal mines allows for a more thorough analysis.

There are five steps in estimating revenues from federal mineral royalties: 1) project mineral prices; 2) use price changes to project oil, natural gas, and natural gas liquids royalty payments; 3) project coal royalties; 4) estimate rents, bonuses, and other payments; and 5) calculate and allocate the U.S. mineral royalty revenue to the appropriate account.

<u>Mineral Prices</u>

U.S. mineral royalties are estimated based on the price of the minerals. Royalties vary with price changes. The price of minerals mined in Montana closely follows the national prices. Table 2 shows actual mineral prices for FY 2006 and forecast prices for FY 2007 through FY 2009.

Table 2
Percent Change in Mineral Prices

Prices	Actual FY 2006	Percent change	Forecast FY 2007	Percent change	Forecast FY 2008	Percent change	Forecast FY 2009	Percent change
Montana Oil ($/bbl)	$57.34	26.45%	**$58.19**	**1.49%**	**$57.62**	**-0.98%**	**$56.16**	**-2.53%**
Henery Hub Gas ($/mmBtu)	$9.05	43.33%	**$7.43**	**-17.97%**	**$9.79**	**31.80%**	**$9.59**	**-2.00%**
Natural Gas Liquid ($/gal)	$0.99	21.30%	**$0.97**	**-1.43%**	**$0.93**	**-4.92%**	**$0.93**	**0.00%**

The Montana oil prices are from the OBPP *Oil and Gas Production Tax* analysis. Montana oil prices were forecast using Global Insight's projection of the West Texas Intermediate (WTI) oil price. The oil price is forecast to increase slightly in FY 2007 and then decrease slightly though FY 2009.

The Henry Hub gas price is used to project natural gas royalties. The forecast for the

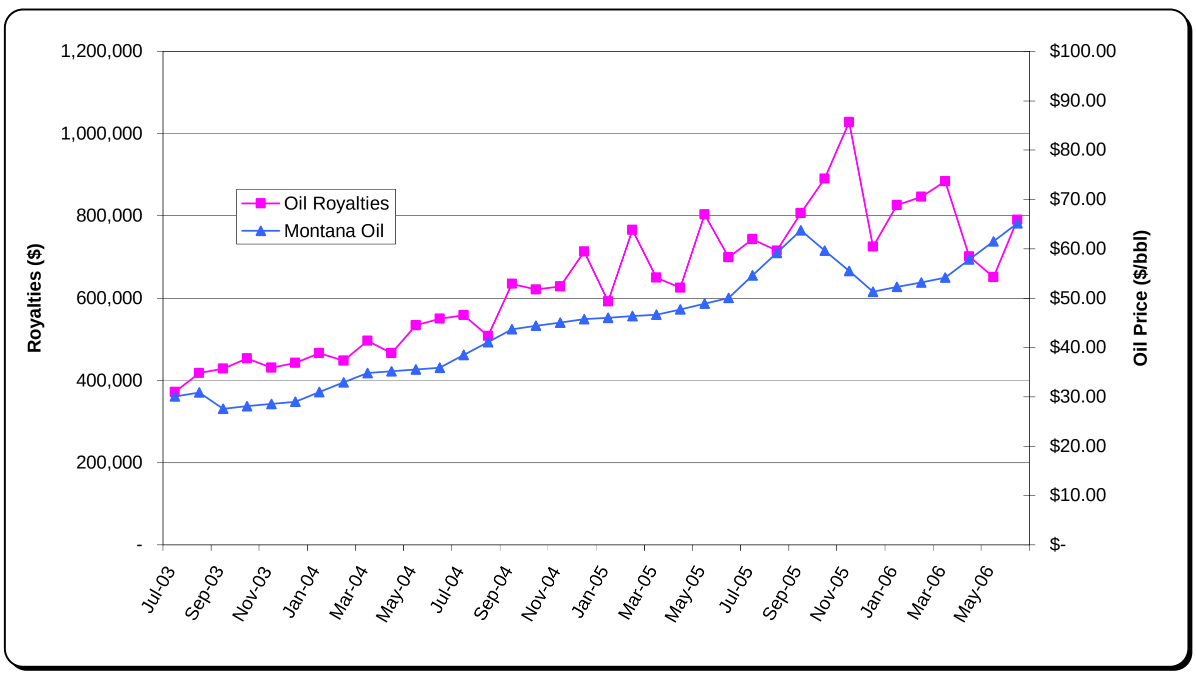
Henry Hub price is from Global Insight. Prices are expected to decrease by 18% in FY 2007 and then increase 32% in FY 2008 and remain close to that in FY 2009.

Gas plant royalties are the byproducts of oil and natural gas production. Natural gas liquid or propane is the main component of gas plant production. Projected natural gas liquid prices are used to forecast gas plant royalties and are from the Mont Belvieu spot and future prices traded on the New York Mercantile Exchange (NYMEX). In FY 2007 prices are projected to decrease slightly and then decrease more in FY 2008. Prices are projected to remain at FY 2008 levels in FY 2009.

Oil, Natural Gas, and Gas Plant Royalties

As seen in Chart 1, oil prices and oil royalty payments move together over time. The relationship between oil price and oil royalties over time is used in a statistical model that forecasts oil royalties using the projected prices.

Chart 1
Change in Oil Royalties and Montana Oil Price



As seen in Chart 2, natural gas prices and natural gas royalty payments move together over time. The relationship between natural gas price and royalties over time is used in a statistical model that forecasts natural gas royalties using the projected prices.

Chart 2
Change in Gas Royalties and Henry Hub Natural Gas Price

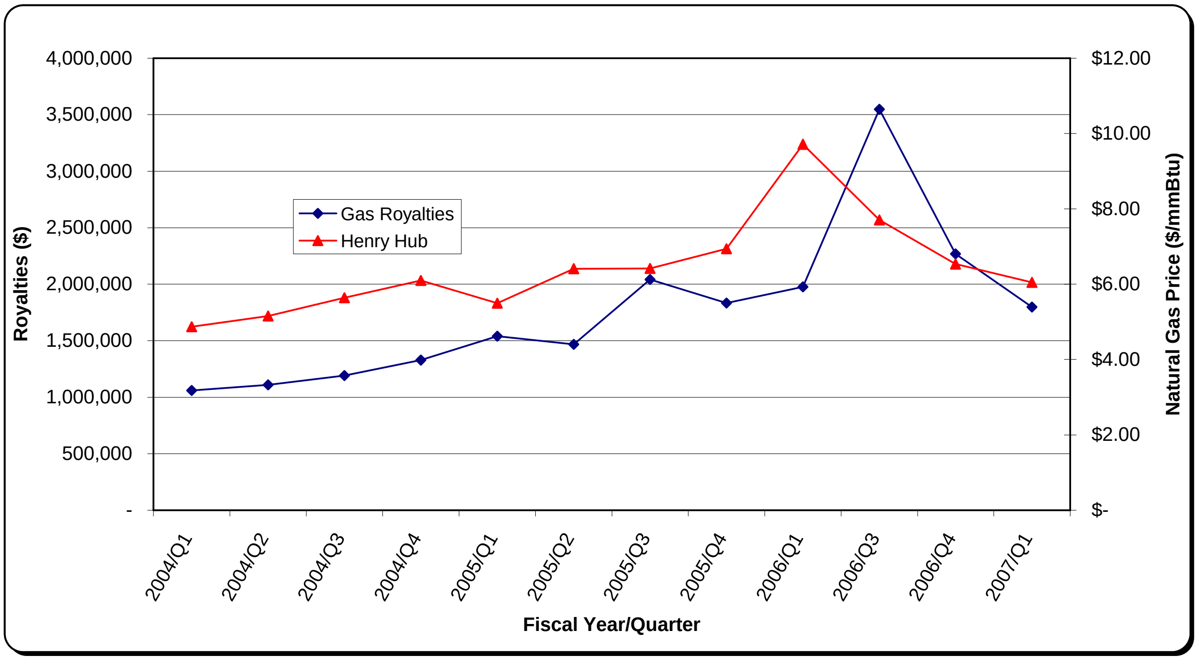


Table 3 shows actual U.S. mineral royalty revenue for FY 2004 through FY 2006 and the forecast revenue for FY 2007 through FY 2009. Oil royalties are projected to decrease each year, primarily due to the decrease in projected prices in FY 2008 and FY 2009. Gas royalties are projected to decrease significantly in FY 2007 and then increase in FY 2008 and remain at that level in FY 2009 with the price variation. Gas plant royalties are projected to decrease in FY 2007 and FY 2008 as the price falls.

Table 3
U.S. Mineral Royalties by Mineral Type
($ millions)

	Actual			Forecast		
Revenue Type	FY 2004	FY 2005	FY 2006	**FY 2007**	**FY 2008**	**FY 2009**
Oil Royalties	$5.507	$7.800	$9.834	**$9.779**	**$9.676**	**$9.427**
Gas Royalties	$4.688	$6.882	$10.522	**$8.465**	**$11.266**	**$11.021**
Gas Plant Royalties	$0.094	$0.136	$0.209	**$0.153**	**$0.144**	**$0.144**

Coal Royalties

The estimate of federal royalty revenue for coal production has three steps.

First, the taxable coal production is determined. The forecast production is obtained from a survey of coal mines in Montana.

Second, the taxable production is multiplied by the estimated coal price to determine the taxable value. Coal prices are estimated by applying Global Insight's producer price index for coal to the most recent average federal coal price in Montana. Table 4 shows the actual and projected production multiplied by the average price to get taxable value.

Table 4
Taxable Value of Coal Production on Federal Land

Fiscal Year	Taxable Production (MM tons)		Average Price ($/ton)		Taxable Value ($ millions)
A 2006	22.150	X	$10.957	=	$242.689
F 2007	**24.444**	X	**$9.725**	=	**$237.718**
F 2008	**26.252**	X	**$9.802**	=	**$257.327**
F 2009	**24.576**	X	**$9.902**	=	**$243.345**

Third, as shown in Table 5, the taxable value is multiplied by the average royalty rate and by the state percentage to get the projected revenue. The average royalty rate varies across years because the royalty rates vary by mine. The proportion of coal produced by each mine changes each year, causing the average royalty rate to change yearly. Total royalty revenue from coal is projected to decrease in FY 2007 to $14.935 million, increase to $16.204 million in FY 2008, and decrease to $14.881 million in FY 2009 due primarily to fluctuations in projected production.

Table 5
Total Coal Royalty Revenue
($ millions)

Fiscal Year	Taxable Value		Average Royalty Rate		State Share		Revenue
A 2006	$242.689	X	12.95%	X	50%	=	$15.715
F 2007	**$237.718**	**X**	**12.57%**	**X**	**50%**	**=**	**$14.935**
F 2008	**$257.327**	**X**	**12.59%**	**X**	**50%**	**=**	**$16.204**
F 2009	**$243.345**	**X**	**12.23%**	**X**	**50%**	**=**	**$14.881**

Rents, Bonuses, and Other Royalties

U.S. mineral royalty disbursements include revenue other than royalties directly derived from the major categories of mineral production. Rents, bonuses, and royalties from other minerals are also part of U.S. mineral royalty disbursements. Rents are annual payments on leases, not currently under production, made to retain rights to the leases. Bonuses are payments made to obtain the rights to mineral leases. Other royalties include royalties on sand and gravel, sulfur, carbon dioxide, and other minor products plus audit payments related to previous years' production and royalties. It also includes some payments not directly related to mineral production, such as pipeline right-of-way fees.

Rents, bonuses, and royalties from small sources show great variation from year to year and follow no particular pattern, as shown in Table 6. The total revenue from these sources is forecast to be the average collections for the past 13 quarters. This average per quarter of $3.413 million is multiplied by four to get an annual revenue estimate for FY 2008 and FY 2009. For FY 2007, actual collections through September are added to the average projection of $3.413 million multiplied by three for the remaining three quarters. Revenue in FY 2007 is projected to be $3.224 million.

General Fund and Mineral Impact Account Revenue

Table 6 shows actual U.S. mineral royalties by mineral type and other revenue for FY 2004 through FY 2006 and forecast revenue for FY 2007 though FY 2009. Total U.S. mineral royalties are forecast to be $36.556 million in FY 2007, $40.702 million in FY 2008, and $38.885 million in FY 2009.

Table 6
Sources and Allocation of U.S. Mineral Royalties Revenue
($ millions)

Revenue Type	FY 2004	FY 2005	FY 2006	**FY 2007**	**FY 2008**	**FY 2009**
Coal Royalties	$14.227	$17.254	$15.715	**$14.935**	**$16.204**	**$14.881**
Oil Royalties	$5.507	$7.800	$9.834	**$9.779**	**$9.676**	**$9.427**
Gas Royalties	$4.688	$6.882	$10.522	**$8.465**	**$11.266**	**$11.021**
Gas Plant Royalties	$0.094	$0.136	$0.209	**$0.153**	**$0.144**	**$0.144**
Other Revenue	$5.507	$3.775	$2.073	**$3.224**	**$3.413**	**$3.413**
Total	$30.023	$35.847	$38.352	**$36.556**	**$40.702**	**$38.885**
Revenue Allocation						
General Fund	$26.520	$25.429	$28.764	**$27.417**	**$30.527**	**$29.164**
Mineral Impact Account	$3.502	$10.418	$9.588	**$9.139**	**$10.176**	**$9.721**
Total	$30.023	$35.847	$38.352	**$36.556**	**$40.702**	**$38.885**

The general fund receives 75% of the total state share of U.S. mineral royalties and the mineral impact account receives 25%. General fund revenue from U.S. mineral royalties is forecast to be $27.417 million in FY 2007, $30.527 million in FY 2008, and $29.164 million in FY 2009. The mineral impact account is forecast to receive $9.139 million in FY 2007, $10.176 million in FY 2008, and $9.721 in FY 2009.

Data Sources

Past oil and gas prices are from the Energy Information Administration of the U.S. Department of Energy. FY 2006 coal prices were obtained from the MMS. Futures prices for oil, natural gas, and coal are from Global Insight's October 2006 forecast. Past coal production is from the coal severance tax returns. Estimates of future coal production are from a survey of the coal companies. The MMS provides mineral production from federal leases, its value, royalties and payments to the state.