



Report to Congress

Minerals Management Service Royalty in Kind Program

Fiscal Year 2007

Energy Policy Act of 2005 - Section 342

MMS U.S. Department of the Interior
Minerals Management Service

Report to Congress

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August 2008

Cover photos clockwise from top left:
Ocean Confidence Drilling Rig (Diamond Offshore)
Natural gas flame, courtesy of the Department of Energy
Oil Refinery
Gas pump

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Executive Summary

Overview

The Fiscal Year 2007 Report to Congress fulfills this year's annual requirement under Section 342 (e)(2) of the Energy Policy Act of 2005 that the Secretary of the Interior submit to Congress a report that describes the performance, benefits, and savings associated with the Minerals Management Service (MMS) Royalty in Kind (RIK) Program. This report also serves as the annual update for other program stakeholders, detailing the history, current status, operational condition, and the successes of the MMS RIK Program over the past year and longer term.

Through the RIK Program, MMS takes royalties on crude oil and natural gas production in amount or "in kind" from the Federal lessee rather than via a cash payment, or "in value" method. The MMS then sells that crude oil or natural gas production competitively on the open market. Through the competitive sales process, the RIK Program increases the return on the American taxpayers' crude oil and natural gas royalty assets. The RIK Program accomplishes this by: (1) improving government efficiencies, (2) reducing administrative costs, and (3) providing a fair market return on the royalty assets of the American taxpayers, typically reflected in increased revenues over the in value method.

Fiscal Year (FY) 2007 marks the 10-year anniversary of the first formal evaluation of the RIK concept. A number of pilot projects and other studies confirmed the benefits of an RIK strategy used in tandem with the traditional royalty in value (RIV) approach. During FY 2007, there were many significant changes in the RIK Program. The joint MMS-Department of Energy Program to fill the remaining capacity of the Strategic Petroleum Reserve (SPR) began in July 2007. In the RIK Natural Gas Program, seven new sales packages were added, significantly increasing the natural gas volumes in RIK. Two of these packages involve production from onshore Federal leases in the State of Wyoming under a new partnership that began in FY 2006.

The RIK Program provides several economic benefits for the American public:

- (1) Lower administrative costs - The program reduces administrative costs by reducing the number of costly reviews, audits, and disputes over payment.
- (2) Time value of money - Additional benefits accrue to the government due to earlier receipt of royalty payments under the RIK Program, because RIK sales contracts require earlier payments than in value royalties.
- (3) Increased revenue - The government receives increased royalty receipts by obtaining higher sales values for RIK production and by paying lower operational costs for transporting and processing RIK production.

During FY 2007, the benefits of the RIK Program totaled over \$63 million.

Total Benefits of RIK Program - FY 2007			
	Crude Oil	Natural Gas	Total
Administrative Savings	\$1,826,810	\$1,726,582	\$3,553,392
Time Value of Money Benefit	\$2,306,589	\$782,483	\$3,089,072
Revenue Performance	\$18,614,613	\$37,920,116	\$56,534,729
Total Benefits	\$22,748,012	\$40,429,181	\$63,177,192¹

Background

The RIK Program began as a pilot program in 1998 in partnership with the State of Wyoming involving crude oil. Also that year, MMS collaborated with the Texas General Land Office to sell natural gas in the Gulf of Mexico. The program quickly expanded after that to include sales to government facilities through the General Services Administration in 1999 and broader sales of crude oil and natural gas in the Gulf of Mexico in 2000. The program transitioned into a permanent program with the approval and publication of the Five Year Royalty in Kind Business Plan in 2004, following an independent review and analysis verifying the program's viability by the Lukens Energy Group.

RIK Business Model and Organization

The RIK business model was designed according to statutory authorities as a conservative, price-taker seller of energy commodities into the wholesale, upstream market. However, the model also incorporated many commercial oil and gas practices, such as use of standard industry oil and gas contracts, sales terms, and competitively based transportation and processing contracts. The organizational structure also followed typical industry design, incorporating: (1) Front Offices for management of the royalty asset, including conversion of properties to RIK, supporting the Procurement Branch in securing transportation and processing contracts, and conducting sales; (2) a Mid Office for counterparty pre-qualification and credit analysis; and (3) a Back Office to manage invoices and production imbalances. Additionally, MMS has incorporated an Economic Analysis Office within the RIK structure to compute and analyze revenue performance measurements and assist in economic analyses of oil and gas markets.

Five Year Business Plan Goals

The Five Year Plan set out a number of measurable commercial objectives and efficiency goals for the RIK Program, several of which were modified to reflect the unanticipated financial success of the program, production declines, and royalty relief litigation.

¹ Small discrepancies in the totals in tables in this report are due to rounding.

Two of the primary objectives are to:

- Realize maximum benefits by optimizing RIK volumes:
 - RIK Natural Gas – initial goal to grow to 1.3 billion cubic feet per day in FY 2009 (revised to 825,000 thousand cubic feet per day),
 - RIK Crude Oil – maintain static volumes of up to 190,000 barrels per day through FY 2009,
- Enhance net revenue by an initial goal of \$50 million over 5 years, (revised to \$125 million).

The RIK Program has made significant progress towards achieving these goals and other goals outlined in the Five Year Plan and is currently developing a subsequent multi-year plan to carry the program beyond 2009.

FY 2007 Process Improvements

During FY 2007, MMS implemented many improvements to processes and policies within the RIK Program. These improvements include:

- Specific procedures about bid acceptance during RIK sales,
- Clearly defined roles and responsibilities during the RIK sale process,
- Specific documentation requirements regarding the decision making process during RIK sales and improved record keeping,
- Strengthened internal controls in all of the RIK processes,
- Coordination with the MMS Procurement Office, and
- Procedures for information sharing and volume reconciliations between the RIK Program and the MMS Compliance and Asset Management Program.

Revenue Performance

RIK revenue performance measures the financial success and economic benefits of the RIK Program by comparing RIK sales receipts to a fair market value (FMV) benchmark range. The FMV methodology was devised in collaboration with an independent energy consulting firm, Lukens Energy Group. The FMV benchmark is an approximation of what the average third-party may have sold the same production for and estimates what MMS would expect to see on average through RIV. Following are the revenue performance results in FY 2007 for RIK natural gas sales in the Gulf of Mexico and Wyoming, RIK crude oil sales in the Gulf, and the Small Refiner Program.

RIK Natural Gas Program

In FY 2007, the MMS converted seven new packages of natural gas from RIV status to RIK. Conversion is based on MMS' statutory obligation under the Energy Policy Act to assure that RIK benefits would equal or exceed those received under the RIV method of royalty collection. Five of the seven packages (all in the Gulf of Mexico) were converted as "revenue neutral," primarily to increase volumes in concert with the Five Year Plan. However, in several of the Gulf conversions, MMS identified an opportunity to obtain bids with premium, above index prices, because purchasers could benefit from access to attractive downstream markets using RIK transportation contracts.

In 2007, other packages of Gulf RIK gas, previously converted, continued to perform well based on lower costs realized for transportation and processing services and premiums paid over index prices. Overall revenue gains for the 22 Gulf natural gas packages in 2007 were over \$24 million.

In Wyoming, the two conversions were primarily based on (1) securing arrangements at local processing plants that lowered processing costs substantially below what current Federal lessees were incurring, or (2) obtaining sales prices that were substantially higher than what Federal lessees were receiving. FY 2007 revenue gains for Wyoming RIK gas were over \$13 million.

RIK Crude Oil Program

The RIK Crude Oil Program consists of three main sub-programs:

- The Unrestricted Program (Gulf of Mexico and Pacific),
- The Small Refiner Program, and
- The Strategic Petroleum Reserve Program (SPR).

In FY 2007, the Gulf Unrestricted Program realized revenue gains above FMV of more than \$11 million, a substantial increase over the previous year. These gains are primarily attributable to: (1) RIK benefiting from crude oil price increases during FY 2007, because RIK crude oil sales contracts use “calendar month” pricing instead of earlier “trade month” pricing used in some industry sales contracts; and (2) RIK obtaining premiums from purchasers on certain crude packages for which the purchaser entered into lucrative downstream financial transactions and passed on a portion of those benefits to RIK.

The MMS does not benefit financially from the SPR Program, but provides crude oil to the Department of Energy (DOE) for SPR fill to strengthen national security. In FY 2007, the RIK Program delivered over 4,300,000 barrels of crude oil to the DOE.

RIK Beyond FY 2007

The RIK Program continues to be a dynamic program. In FY 2008, RIK began transporting natural gas from Wyoming on the Rockies Express pipeline to the mid-continent and added substantial volumes to the onshore natural gas program to capture the rapidly increasing production in Wyoming. The current SPR fill initiative continued through the end of June 2008 and the crude oil barrels were converted to competitive sales in July 2008. The RIK Program has already implemented many, and will continue to implement, recommendations made by internal and external review groups, such as the Government Accountability Office, the Inspector General and the Royalty Policy Committee.

**Minerals Management Service
Minerals Revenue Management
Royalty in Kind Program FY 2007 Report
August 2008**

1 Background

The Minerals Management Service (MMS) is the Federal agency that collects, accounts for, and disburses, on average, nearly \$11 billion per year² in revenues from Federal offshore mineral leases and from onshore mineral leases located on Federal and Indian lands. Historically, the recipients of these revenues include the U.S. Treasury, other Federal agencies, 38 states, 41 Indian tribes, and over



30,000 individual Indian mineral owners. Most of these revenues have historically been received in the form of cash payments, referred to as royalty in value (RIV) payments. Through the Royalty in Kind (RIK) Program, MMS takes Federal royalties in kind, in the form of product, and competitively sells the crude oil or natural gas on the open marketplace. The RIK Program improves government efficiencies, reduces administrative costs, and provides a fair market return on the public's royalty assets.

The Outer Continental Shelf Lands Act of 1953 (OCSLA), as amended, and the Mineral Leasing Act of 1920, as amended, authorize the collection of production royalties either in value or in kind for Federal lands leased for development on the outer Continental Shelf (OCS) and onshore. Further, the terms of almost all Federal oil and gas leases provide for royalties to be paid in value or in kind at the discretion of the lessor. In the mid-1990's, MMS began exploring the potential for a broadly applied RIK Program. Several pilot projects tested this approach under a variety of conditions for crude oil and natural gas, and for onshore and offshore production volumes. The MMS concluded that RIK is a viable approach to be used in tandem with royalty in value in managing Federal oil and gas royalty assets. The asset management strategy of MMS includes the selective and strategic use of both RIK and RIV, based on systematic economic analysis of the Federal oil and gas portfolio. The mission of the RIK Program is to:

“Develop and maintain the ability and expertise to fully utilize the RIK approach to efficiently manage and optimize the value of mineral royalty assets.”

Fiscal Year (FY) 2007 marks the 10-year anniversary of the first formal evaluation of taking Federal oil and gas royalties in kind. This Annual Report to Congress

² On average, over the last 5 years, MMS has disbursed nearly \$11 billion annually.

details the results and achievements of the MMS RIK Program during FY 2007 (October 1, 2006, through September 30, 2007). It also provides a brief history of the RIK Program and performance results from past years as a comparison to FY 2007.

Energy Policy Act of 2005 Requirements

The report covers the information required by Section 342 (e)(2) of the Energy Policy Act of 2005 (EPAAct). The EPAAct requires that for each of fiscal years 2006-2015 in which the United States takes oil or gas royalties in kind from production in any state or from the OCS, excluding royalties taken in kind and sold to refineries under subsection (h), the Secretary shall submit to Congress a report that describes:

- (A) the one or more methodologies used by the Secretary to determine compliance with subsection (d), including the performance standard for comparing amounts received by the United States derived from royalties in kind to amounts likely to have been received had royalties been taken in value;
- (B) an explanation of the evaluation that led the Secretary to take royalties in kind from a lease or group of leases, including the expected revenue effect of taking royalties in kind;
- (C) actual amounts received by the United States derived from taking royalties in kind and costs and savings incurred by the United States associated with taking royalties in kind, including administrative costs savings and any new or increased administrative costs; and
- (D) an evaluation of other relevant public benefits or detriments associated with taking royalties in kind.

This required information is contained within this report. Please see Section 6 for a summary of the information.

The Beginning of Royalty in Kind: Pilot Projects

In 1998, MMS and the State of Wyoming collaborated on the first major RIK pilot project. The first competitive sale was for a 6-month term beginning in October 1998 involving only crude oil from Federal leases in the state. Subsequent sales included volumes of over 6,000 barrels per day and included production from state leases, as well. This pilot demonstrated that the RIK approach was viable, reduced the period of value uncertainty from years to months, increased royalty receipts, and yielded administrative savings to MMS and to industry. The Wyoming Crude Oil Program was discontinued in April 2006 due to low production volumes and changing market conditions.



Also in 1998, MMS partnered with the Texas General Land Office (GLO) in another RIK project. This project involved natural gas production from Federal leases in the Texas 8(g) zone of the Gulf of Mexico. The 8(g) zone refers to the area within three miles seaward of state waters, where approximately 27 percent of lease revenues are shared with the coastal state. This pilot also had a goal to learn from the GLO's longstanding RIK Program. This project concluded the RIK strategy is viable for natural gas royalties and can lead to modest increases in revenue. It also resulted in administrative savings for MMS and industry, as in the Wyoming crude oil pilot. This pilot was later incorporated into a broad Gulf of Mexico pilot.

In 1999, MMS and the General Services Administration (GSA) entered into an agreement to take natural gas in kind from Federal leases for use in GSA facilities. The pilot involved a series of exchange transactions and spanned from December 1999 through March 2001. This pilot demonstrated the need for MMS to seek authority to enter into and pay for transportation contracts in order to manage RIK volumes successfully. This authority was subsequently sought and granted by Congress in FY 2001.

The MMS initiated sales under a Gulf of Mexico RIK Natural Gas Pilot in April 2000. This pilot involved the sale of approximately 500,000 MMBtu per day of RIK natural gas transported on nine pipeline systems in the Gulf of Mexico. This pilot allowed MMS to refine specific strategies and processes for selling RIK natural gas. Specific areas of focus included managing volumes, gas imbalances, and gas processing rights. The pilot provided an important base of market knowledge needed for the development of a defined business model for future RIK operations.

The Gulf of Mexico RIK Crude Oil Pilot began in August 2000. It involved two competitive sales of RIK crude oil from Federal leases in the Gulf of Mexico of approximately 60,000 barrels per day. It provided MMS staff with important insights into crude oil markets, pipeline infrastructure, and competitive sales processes. In November 2001, the pilot ended to respond to a Presidential Directive to use RIK oil in filling the Department of Energy's Strategic Petroleum Reserve (SPR).

Although not a pilot project, the Small Refiner Program benefited from a number of improvements generated from the pilot programs. The MMS and its predecessor agency, the U.S. Geological Survey, have operated a Small Refiner Program for many years where RIK crude oil is sold to qualified small refiners.

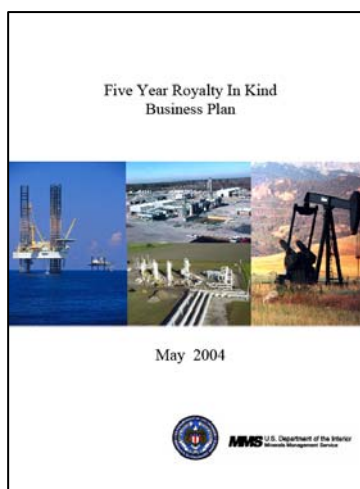
Transition from Pilot to Permanent Program

The pilot projects advanced MMS's knowledge of the oil and gas markets and provided experience in using commercial approaches to sell production. The pilots provided MMS with an in-depth understanding of the implications of using the RIK approach. These implications included establishing a risk policy,

operational processes, recordkeeping requirements, analytical techniques, credit monitoring, and contracting strategies, among others. Most importantly, the pilots confirmed the viability of the RIK approach and its use in tandem with the RIV approach.

In January 2001, MMS management decided to proceed with the development of a permanent RIK operational activity. The *Road Map to the Future: Implementing Royalty in Kind Business Processes and Support Systems* (Road Map) set forth the strategic direction for the development of the RIK process and the resources needed to effectively manage and support ongoing RIK operations. The MMS developed and implemented core operational processes and expanded the pilot operations.

In January 2003, MMS engaged the Lukens Energy Group to evaluate the capabilities and performance of the RIK Program. The Lukens Energy Group recommended improvements in several areas prior to any significant expansion of the RIK Program. These improvements included performance measurement, quantitative economic analysis, and the enhancement of complex marketing and sales strategies. With the input from the Lukens Energy Group, MMS published the *Five Year Royalty in Kind Business Plan* (Five Year Plan) to guide RIK business through 2009. This marked the transition of the RIK Program from pilot projects to a permanent RIK Program.



2 RIK Business Model/Organization

RIK Business Model

The RIK Program's commercial business model and core operational procedures were developed in the Road Map and in the expanded pilot operations. The business model was designed according to statutory authorities and positions MMS as a conservative, price-taker seller of energy commodities into the wholesale, upstream market. The business model features the use of:

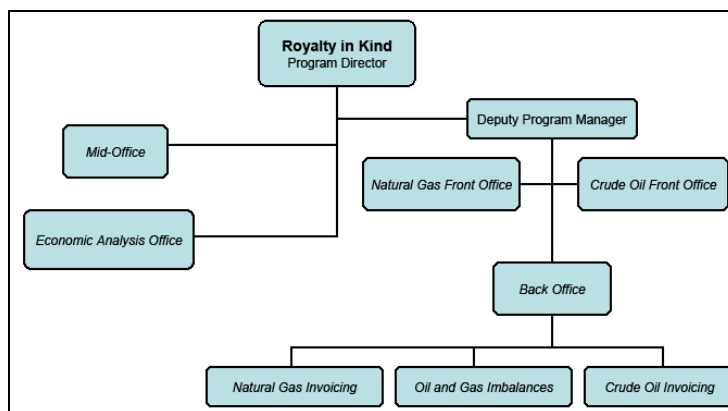
- Competitive sales based on upstream physical spot markets,
- Standard industry contracts for less than 1 year in duration,
- Competitively based transportation and processing contracts,
- No fixed price, financial derivatives, or storage positions, and
- Conservative credit risk assessments.

In addition to the core RIK business model, the Five Year Plan laid out a set of guiding business principles for the RIK Program. The RIK business principles are to:

- Meet or exceed revenue benchmarks, using a portfolio approach, established in accordance with statute,
- Maximize net revenue for RIK volumes consistent with the business model,
- Continue to focus on the Gulf of Mexico as a strategic core area, and work with producing states to identify/develop onshore opportunities,
- Efficiently manage administrative costs of the RIK Program,
- Maintain flexibility in responding to the Nation’s strategic energy initiatives, and
- Maintain the highest ethical and professional standards.

RIK Program Organization and Staff

The RIK Program organization was designed to mirror industry-standard structure, with strong internal controls. This structure includes separate front offices for asset management activities, back offices for accounting activities, a mid office for credit monitoring, and an economic analysis office for performance measurement and other analytical activities. The Economic Analysis Office and Mid Office report directly to the RIK Program Director while the Front and Back Offices report to the Deputy Program Manager. The RIK operations are supported by the MMS Procurement Office. The MMS Procurement Office manages all supporting transportation and processing contracts that fall under the Federal Acquisition Regulations (FAR). The MMS Procurement Office is not shown on the organizational chart below, as it is independent of the RIK Program.

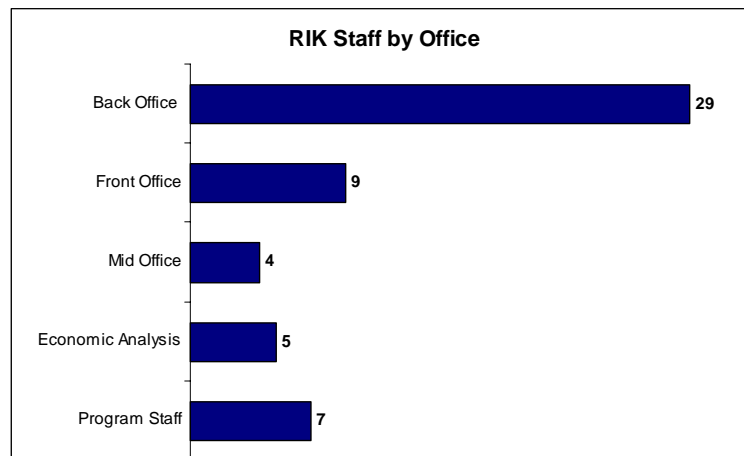


The responsibilities of each office are:

- Front Office – separate offices for Crude Oil and Natural Gas
 - Select properties for conversion from RIV to RIK
 - Support the Procurement Office regarding contracts for transportation and processing
 - Solicit competitive bids for and conduct the sale of RIK production
 - Maintain effective working relationships with counterparties

- Back Office – separate offices for oil invoicing, gas invoicing, and imbalance monitoring
 - Invoice purchasers for RIK production monthly
 - Initiate payment process for supporting services
 - Monitor and calculate operator imbalances
- Mid Office
 - Assess the creditworthiness of potential RIK counterparties
 - Monitor RIK credit exposure
- Economic Analysis Office
 - Complete all performance measurement metrics
 - Provide any necessary economic analysis
 - Maintain oil and gas pricing databases
- MMS Procurement Office
 - Manage all transportation and processing contracts
 - Assist in processing payments to service providers through the MMS accounting system
 - Provide advice and guidance in the sales process

This organizational structure provides for clear separation of duties designed to focus and optimize functional expertise while ensuring strong internal controls. Implementation of the Five Year Plan has led to significant growth in the size of the RIK Program staff and in the skill set of the RIK



Program employees. The RIK Program maintains a staff with skills in commercial sales, marketing, transportation, scheduling, accounting, economic analysis, and contract administration. The number of staff in each office during FY 2007 is shown in the chart.

The RIK Program is headquartered in Lakewood, Colorado, with a satellite office in Houston, Texas. Most Gulf of Mexico RIK industry counterparties and service providers have their offices in the Houston area. Maintaining a Houston presence facilitates effective working relationships with industry counterparties. A front office presence in Houston is also essential to successfully attract required expertise needed to fully staff the office. Currently, there are three Natural Gas Front Office positions, two Back Office positions, and one Mid Office position in the Houston RIK Program office.

Five Year Business Plan Goals

The Five Year Plan set out a number of measurable commercial objectives and efficiency goals for the RIK Program.

The original commercial objectives are to:

- Realize maximum benefits by optimizing RIK volumes:
 - RIK Natural Gas – initial goal to grow to 1.3 billion cubic feet per day in FY 2009 (revised to 825,000 thousand cubic feet per day),
 - RIK Crude Oil – maintain static volumes of up to 190,000 barrels per day through FY 2009,
- Initial goal to enhance net revenue by \$50 million over 5 years (revised to \$125 million), and
- Develop a high quality marketing portfolio by the following diversification:
 - Customers: Increase sales to utilities/industrials to 20 percent of all natural gas sales
 - Contracts: Increase non-seasonal sales to 35 percent of all natural gas sales.

The goal to increase net revenue has been revised since the Five Year Plan was published. In order to take into account the administrative cost savings and the time value of money benefit, the initial \$50 million goal was first increased to \$67.5 million. After reaching \$67.1 million at the end of FY 2006, the goal was revised upward to \$125 million. In addition, at the beginning of FY 2008, MMS revised the natural gas volume goals set forth in the Five Year Plan due to production declines, royalty relief issues, and other priorities. The table below shows the original and revised volume goals/projections for FY 2006 - FY 2009.

Revised Natural Gas Volume Goals (MMBtu/day)		
	Five Year Plan Goal	Actual/Revised Goal
FY 2006	650,000	493,733 ³
FY 2007	800,000	763,000
FY 2008	950,000	800,000
FY 2009	1,050,000	825,000

The MMS is also working towards other goals laid out in the Five Year Plan and has made significant progress towards portfolio diversification and is working towards the other administrative goals.

FY 2007 Process Improvements

During FY 2007, MMS implemented many improvements to processes and policies within the RIK Program. These improvements include:

- Specific procedures about bid acceptance during RIK sales,
- Clearly defined roles and responsibilities during the RIK sale process,

³ Actual volume for FY 2006.

- Specific documentation requirements regarding the decision making process during RIK sales and improved record keeping,
- Strengthened internal controls in all of the RIK processes,
- Coordination with the MMS Procurement Office, and
- Procedures for information sharing and volume reconciliations between the RIK Program and the MMS Compliance and Asset Management Program.

Credit Policy

A sound credit policy is central to the success of the RIK Program. The credit policy, completed in June 2005, responds to credit risks inherent in energy commodity sales. The policy provides guidance and direction for counterparty credit evaluation, requirements for secured versus unsecured credit lines, provision of credit assurance, contract termination, and emergency procedures. During FY 2007, the Mid Office put a new credit-scoring model into use for determining appropriate credit lines for RIK counterparties.

Risk Management Policy

Policy oversight plays a large role in the risk management policies of the RIK Program. The Chief Risk Officer manages the oversight activities and reports directly to the Minerals Revenue Management Associate Director and the MMS Executive Committee. The RIK also has risk management policies and procedures to implement key internal controls. The *Royalty in Kind Risk Management Policy* (Policy) outlines the principles and policies that drive risk management decisions and guide day-to-day RIK operations. The subsequent *Risk Management Procedures Manual* (Procedures) outlines the specific actions necessary to implement the policy.

The Policy provides a framework to:

- Balance risk management and operational flexibility,
- Mitigate exposure to and results of undesirable outcomes,
- Assign responsibilities and accountability for risk management, and
- Monitor and report on risk exposures.

The Procedures:

- Delegate authorities for:
 - Transacting sales,
 - Accounting,
 - Invoicing,
 - Collecting debt, and
 - Monitoring and reporting,
- Provide clear and detailed guidance on sales and transactions allowed, those requiring further approval, and those that are prohibited,
- Outline monitoring and reporting responsibilities, and
- Include an attestation of compliance with risk management policies.

Partners

The RIK Program works with a number of different federal agencies, states, and industry partners to accomplish its mission. These partners are critical to the success of the RIK Program. The RIK Program currently partners, or has partnered, with the following organizations:

- Department of Energy (DOE) in the joint effort to fill the remaining capacity of the SPR,
- The State of Wyoming on crude oil sales from both Federal and state leases and natural gas sales from Federal leases,
- The States of Texas, Louisiana, and Alabama on natural gas and/or crude oil in 8(g) zones offshore, and
- The Bureau of Land Management (BLM) on sales of natural gas produced from the National Helium Reserve as the reserve is decommissioned.

3 RIK Performance Metrics

The Outer Continental Shelf Lands Act mandates that MMS receive at least fair market value when production is sold in kind. The benefits of using the RIK strategy include the lower administrative costs, time value of money benefit, and increased royalty revenues. Within the RIK Program, the Economic Analysis Office (EAO) is a separate, independent group that measures and reports performance. The EAO staff computes performance on a semi-annual basis with performance results reported to the public annually. In FY 2007, MMS estimates the total value of the benefits of the RIK Program was \$63.2 million.

Total Benefits of RIK Program				
	FY 2004	FY 2005	FY 2006	FY 2007
Administrative Savings	\$1,447,051	\$3,725,372	\$2,368,227	\$3,553,392
Time Value of Money	\$892,875	\$1,528,550	\$2,633,470	\$3,089,072
Revenue Performance	\$17,242,415	\$30,790,482	\$26,254,845	\$56,534,729
Total Benefits	\$19,582,341	\$36,044,404	\$31,256,542	\$63,177,192

3.1 Administrative Cost Performance

The MMS performs an annual comprehensive comparative cost analysis between administering the RIK and RIV Programs. In the RIV Program, MMS is required to validate the value and transportation costs associated with the sales and movement of Federal production. These requirements can be very labor intensive due to the complexity of the business practices surrounding hundreds of mineral lessees and applying valuation regulations defining royalty payment standards.

Royalties taken in kind through the RIK Program are sold under explicit commercial contract terms. These standard industry contracts provide a level of transparency in the valuation and transportation of royalties taken in kind which typically lead to a more efficient process with decreased conflicts and costs. These differences equate to a potential cost savings through taking royalties in kind versus in value.

FY 2007 was the fourth year in which MMS performed this analysis. The RIK Program decreased its administrative costs per barrel of oil equivalent (BOE)⁴ slightly in FY 2007.⁵

Administrative Cost				
	FY 2004	FY 2005	FY 2006	FY 2007
Royalty in Kind Cost Per BOE	\$0.056	\$0.059	\$0.076	\$0.071
Royalty in Value Cost Per BOE	\$0.073	\$0.102	\$0.108	\$0.114
Cost Per BOE Difference	\$0.017	\$0.043	\$0.033	\$0.043
RIK Revenue Gain/Loss	\$1,447,051	\$3,725,372	\$2,368,227	\$3,553,392

The increased efficiency due to the RIK Program translates into a cost savings of \$3.55 million for FY 2007. Meaning, if offshore volumes allocated to the RIK Program were instead taken in value, an additional cost of \$3.55 million would have been accrued.⁶

As part of the administrative cost analysis, MMS examines the number of appeals between the RIK and RIV Programs. Of the 63 pending administrative appeals in FY 2007, none were associated with the RIK Program. The number of appeals is a direct measurement of the potential for litigation and thus cost. Additionally, the time taken to close accounting periods in the RIK Program is significantly lower compared to the RIV business cycle of 3 years. For FY 2007, MMS reconciled nearly 87 percent of RIK delivery volumes within 180 days of the month of production.

3.2 Time Value of Money

Revenue Collection Time (RCT) is a measure of the number of days after each production month that MMS takes to collect outstanding receivables. Payments in the RIK Program are received on average 5 and 10 days before the end of the month following production for gas and oil respectively, which gives MMS an RCT between 20 and 25 days.⁷

Conversely, RIV payments are due at the end of the month following the month of production, which gives RIV an RCT of 30 to 31 days.⁸ The difference in RCT

⁴ The barrel of oil equivalent measure converts natural gas volumes into barrels by assuming 5.8 MMBtu of natural gas has the same heating content as one barrel of oil.

⁵ RIV payments are audited 3 years after the production year; therefore royalties paid in calendar year (CY) 2004 were audited during CY 2007. Therefore, the RIV costs use 2004 BOE volumes as a basis for the cost per BOE.

⁶ Administrative cost savings are only calculated for the offshore RIK volumes. Wyoming is the only state that MMS has royalties in kind and onshore RIV administrative costs are not tracked by state.

⁷ The time value of money calculations are made based on the actual day RIK payments are received.

⁸ An analysis of RIV payments made during FY 2007 showed that the vast majority of payments were received at the end of the month and are not made prior to the due date.

between RIK and RIV provides a time value of money component. Because these payments are received earlier than they would have otherwise been received in the RIV Program, a time value of money (TVM) component is calculated on RIK payments using the number of days for which early payment was made at an annual interest rate of 3 percent.⁹

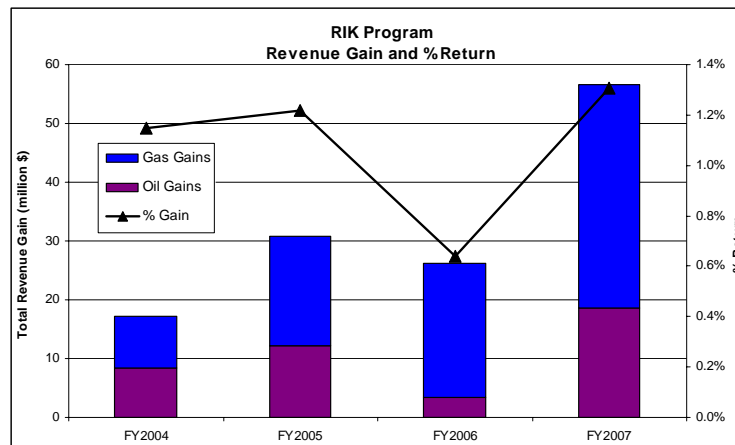
RIK Time Value of Money Benefit				
	FY 2004	FY 2005	FY 2006	FY 2007
TVM Earned - Oil	\$461,030	\$1,023,548	\$1,996,859	\$2,306,589
TVM Earned - Gas	\$431,845	\$505,002	\$636,611	\$782,483
Total TVM Earned - RIK	\$892,875	\$1,528,550	\$2,633,470	\$3,089,072
Total TVM per BOE	\$0.010	\$0.026	\$0.035	\$0.034

The TVM component provided an additional revenue gain from the RIK Program of \$3.1 million or 3.4 cents per barrel of oil equivalent in FY 2007.

3.3 Revenue Performance

The RIK Program can use its position in many markets to realize higher royalty revenue than MMS would expect to earn through RIV. These higher revenues come from more favorable natural gas processing contracts, increased competition, and aggregated production. The RIK Program has a well-defined process using economic modeling to measure and record overall RIK revenue performance. This detailed process was developed with the assistance of Lukens Energy Group. Although minor adjustments and modifications have altered the models in their 4-year application, the general approach and calculation process has not changed.

The MMS computes a fair market value (FMV) benchmark range¹⁰ specific to either oil or natural gas, and compares it to the RIK sales. This FMV benchmark is an approximation of what the average third-party may have sold the same production for and estimates what MMS would expect to see on average through RIV.



⁹ The MMS is currently evaluating the methodology for calculating the interest rate to be used in future time value of money analyses. During FY 2007, the Federal Funds Rate averaged 5.2 percent and the six-month Treasury bill rate averaged 4.77 percent; therefore, the 3 percent rate used may be a very conservative rate and understate actual time value of money benefits.

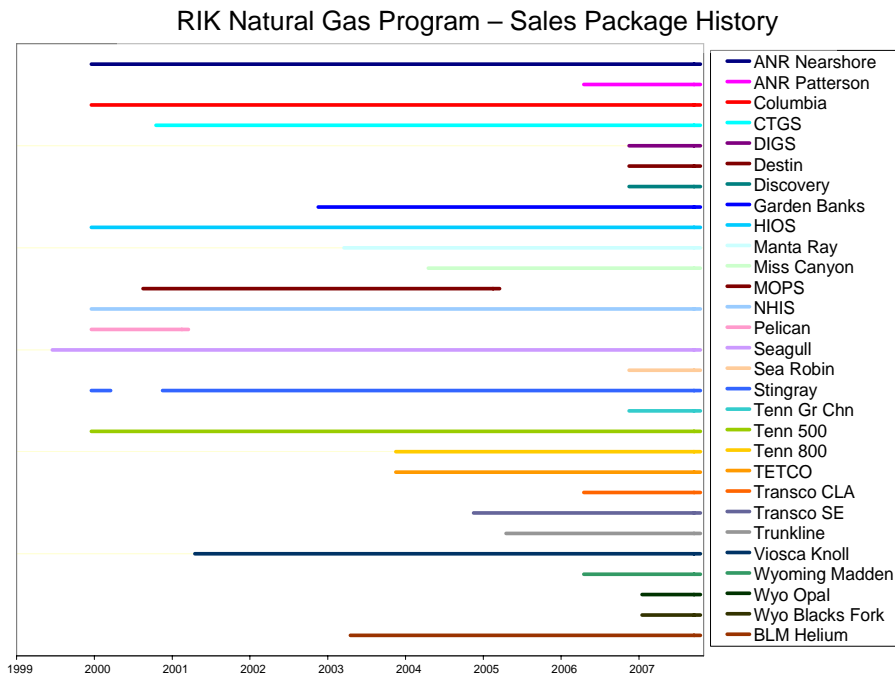
¹⁰ The MMS is currently evaluating reporting RIK revenue performance as a range for FY 2008.

This table and chart display total RIK revenues and the corresponding revenue gains for each year since FY 2004. As shown below, returns as a percentage of total RIK revenues have remained steady at approximately 1.2 percent for Fiscal Years 2004, 2005, and 2007. Returns were lower in FY 2006 due to specific market conditions in the crude oil market and the hurricanes of fall 2005.

	FY2004	FY2005	FY2006	FY2007
Oil Revenue	\$579,025,456	\$1,263,075,756	\$2,665,248,146	\$2,498,530,659
Gas Revenue	\$923,909,425	\$1,265,625,121	\$1,450,733,883	\$1,829,363,142
Total Revenue	\$1,502,934,881	\$2,528,700,877	\$4,115,982,029	\$4,327,893,801
Oil Gains	\$8,470,124	\$12,150,397	\$3,490,618	\$18,614,613
Gas Gains	\$8,772,291	\$18,640,086	\$22,764,227	\$37,920,116
Total Gains	\$17,242,415	\$30,790,482	\$26,254,845	\$56,534,729
Oil % Gain	1.46%	0.96%	0.13%	0.75%
Gas % Gain	0.95%	1.47%	1.57%	2.07%
% Gain	1.15%	1.22%	0.64%	1.31%

4 RIK Natural Gas Program

The RIK Natural Gas Program began with the GSA pilot (described earlier) in June 1999. The RIK Program expanded with the Gulf of Mexico pilot in 2000. The chart to the right shows how the sales packages in the program have changed over the past 8 years.



There have been 29 different packages in the program, with 25 currently in the program. Packages may be added, removed, or combined with others for various reasons; reverted to RIV status due to continued negative performance metrics, low volumes, or unfavorable transportation or processing contracts; and combined with other sales packages to leverage new opportunities or to combine packages with low volumes. FY 2007 saw the addition of seven new packages in order to achieve growth goals set forth in the Five Year Plan.

The RIK Program continues to see high participation in its natural gas sales. In FY 2007, there were 25 sales packages in the RIK Natural Gas Program sold to 20 different counterparties. These sales were supported by approximately 90 transportation, processing, and other service contracts during FY 2007. The chart below details participation information for recent Gulf of Mexico natural gas sales to illustrate the high level of competition for RIK natural gas.

	Number of Bidders	Number of Bids	Number of Companies Awarded
April 2005	19	126	13
November 2005	10	42	3
April 2006	21	127	9
November 2006	15	155	10
April 2007	20	152	10

4.1 Gulf of Mexico RIK Natural Gas Program

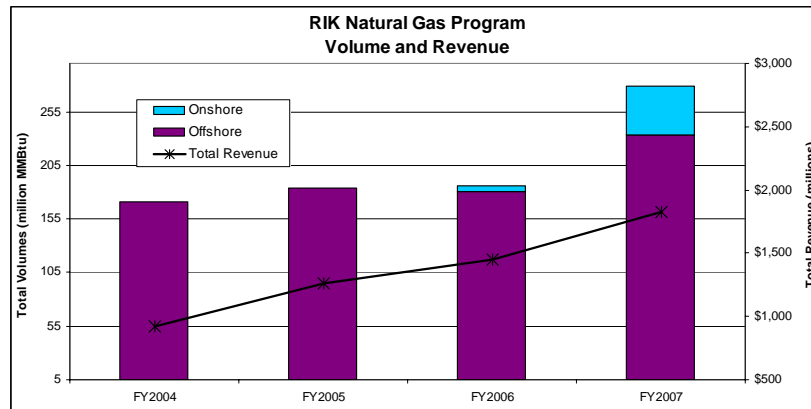
The Gulf of Mexico RIK Natural Gas Program began with the first RIK Natural Gas pilots. The current program consists of 22 sales packages. The MMS has achieved a 1 to 2 percent revenue gain on RIK natural gas sales over the past 4 years. The MMS makes money under the RIK Natural Gas Program due in large part to decreased costs under RIK processing and transportation contracts. For example, in situations where producers have long-term obligations to a specific pipeline and/or processing plant, MMS can obtain a lower rate with a different pipeline and/or plant. However, the program can also make money by obtaining premiums to index prices, because RIK purchasers gain access to attractive downstream markets using RIK transportation contracts. Overall natural gas production in the Gulf of Mexico is declining rapidly, leaving much of the transportation and processing facilities underutilized, increasing competition for natural gas that is not part of a long-term commitment.

	FY 2004	FY 2005	FY 2006	FY 2007
Total Volume (MMBtu)	170,707,071	183,997,321	180,212,534	232,887,752
Total Revenue	\$923,909,425	\$1,265,625,121	\$1,422,637,294	\$1,632,382,454
Revenue Gain (Loss)	\$8,772,291	\$18,640,086	\$23,083,864	\$24,302,030
Revenue Gain (Loss)/MMBtu	\$0.05	\$0.10	\$0.13	\$0.10
Percentage Gain	0.95%	1.47%	1.57%	1.49%

Conversions of Gulf of Mexico Leases from RIV to RIK in FY 2007

In FY 2007, the MMS converted five new natural gas packages, containing 109 leases, in the Gulf of Mexico adding significant volume and revenue to the RIK Natural Gas

Program, as shown in the chart. The conversions were based on comprehensive analyses, which showed that all would at least be revenue neutral (RIK payments



are expected to be equal to what we would expect to receive in value). The MMS converts properties to RIK only when it can be demonstrated through detailed economic analysis that RIK revenues would equal or exceed the revenues received in value. When analysis does not support revenue neutrality or benefit, properties are not converted. Besides revenue benefits, RIK conversion can also result in administrative cost savings and time value of money benefits.

Dauphin Island Gathering System (DIGS)

The MMS converted natural gas royalties from RIV to RIK status for six meters (12 leases/agreements) totaling approximately 16,000 MMBtu/day on the Dauphin Island Gathering System (DIGS) starting November 1, 2006. Duke Energy Field System (DEFS) operates DIGS, which moves gas from the Mobile, Viosca Knoll, and Main Pass areas in the Gulf of Mexico to DEFS's Mobile Bay processing plant onshore and downstream markets. The DIGS package included three meters containing Alabama 8(g) production. The MMS viewed the DIGS RIK conversion as commercially revenue neutral because MMS negotiated the same transportation and processing rates as the producers. However, the DIGS portfolio showed revenue gains because MMS sold the DIGS natural gas at premiums to the fair market value benchmarks. The RIK purchaser on DIGS was able to offer a price higher than index, because they could use MMS's DIGS transportation contract to access numerous downstream markets, thus providing them with greater flexibility to resell the gas in the highest priced market.

Destin Pipeline

The MMS converted natural gas royalties from RIV to RIK status for six meters (24 leases/agreements) totaling approximately 75,000 MMBtu/day on BP Pipeline's Destin Pipeline starting November 1, 2006. Destin transports production from the Viosca Knoll and Main Pass areas to the BP-operated Pascagoula Gas Plant onshore. The MMS paid transportation and processing rates comparable to other parties. However, the Destin portfolio showed revenue gains because MMS sold the Destin natural gas at premiums to the fair market

value benchmarks. Like DIGS, MMS believes we achieved this premium because our Destin transportation contract provided the purchaser flexibility to resell the gas in the most advantageous market.

Discovery Gas Transmission

The MMS converted natural gas royalties from RIV to RIK status for nine meters (18 leases/agreements) totaling approximately 30,000 MMBtu/day on the Discovery Gathering and Transmission Pipelines beginning November 1, 2006. This pipeline transports natural gas production from the South Timbalier, Grand Isle, Ewing Bank, Green Canyon, and Mississippi Canyon areas offshore of Louisiana. The MMS pays the same average transportation rate as producers. The MMS also received a firm transportation rate to guarantee delivery from Discovery into the market with the highest net value. Processing takes place at the LaRose Gas Plant, where MMS received a processing rate equal to or better than the producers. The MMS converted this production to RIK due to the opportunity to move the gas to a market with a higher value, with revenue neutral transportation and processing costs.

Sea Robin Gas Pipeline

The MMS converted natural gas royalties from RIV to RIK status for fifteen meters (22 leases/agreements) totaling approximately 27,800 MMBtu/day on the Sea Robin Gas Pipeline System starting November 1, 2006. Sea Robin transports natural gas from the East Cameron, Vermilion, South Marsh Island, and Eugene Island areas offshore of Louisiana to the Amerada Hess-owned Sea Robin Gas Plant and downstream markets. The MMS received transportation and processing rates equal to the producers, making this at least a revenue neutral portfolio.

Tennessee (Grand Chenier) Gas Pipeline System

The MMS converted natural gas royalties from RIV to RIK for twelve meters (33 leases/agreements) totaling approximately 11,700 MMBtu/day on the Tennessee Pipeline starting November 1, 2006. The production is from the East Cameron, West Cameron, and Vermilion areas of offshore Louisiana and it includes three leases from the Louisiana 8(g) zone. The Tennessee Gas Pipeline is a free-pooling pipeline, meaning there are no transportation charges. Gas was temporarily processed at Targa Resources' Lowry Gas Plant until the Grand Chenier Plant was rebuilt after damage caused by Hurricane Katrina. The MMS expected this portfolio to be revenue neutral to possibly revenue positive depending on the processing rate received at the Grand Chenier Plant.

4.2 Onshore RIK Natural Gas Program

The onshore natural gas RIK Program consists of two programs: sales from the decommissioning of the National Helium Reserve on behalf of BLM and sales of natural gas from Federal leases in the State of Wyoming.

BLM National Helium Reserve

The MMS sells approximately 9,000 MMBtu/day of Federal natural gas produced from the Cliffside Helium Enrichment Unit (CHEU) on behalf of BLM. The CHEU is located in Potter County, Texas near the city of Amarillo. As the helium reserve is drawn down, natural gas is produced. Revenues from these sales are collected by BLM and are not reported in RIK revenues or performance metrics because the natural gas is not royalty gas.

Wyoming

The major component of the onshore RIK Natural Gas Program is production from three major fields in the State of Wyoming. The MMS takes Federal royalties in kind from the Madden, Jonah, and Pinedale Anticline fields. The first production taken in kind was from the Madden field beginning in April 2006. In January 2007, production from the Jonah and Pinedale fields was added to the onshore RIK Natural Gas Program.

Conversions of Onshore Natural Gas Leases from RIV to RIK in FY 2007

In FY 2007, the MMS converted two natural gas packages, containing 47 leases, in Wyoming, adding significant volume and revenue to the RIK Natural Gas Program.

Jonah Field (Opal)

The MMS converted natural gas royalties from RIV to RIK from 41 lease/agreements totaling approximately 100,000 MMBtu/day from the Jonah field in Wyoming's Green River Basin beginning January 1, 2007. The Jonah Gas Gathering System transports this gas south into the Williams' Opal Gas Plant, Enterprise's Pioneer Gas Plant, or into Anadarko's Rendezvous Gathering System. The MMS converted this production to RIK because MMS was able to obtain a processing contract at the available gas plant that is expected to add significant value.

Pinedale Anticline

The MMS converted natural gas royalties from RIV to RIK from six leases totaling approximately 20,000 MMBtu/day from the Pinedale field also in the Green River Basin of Wyoming beginning January 1, 2007. The Questar Gas Management (QGM) gathering system transports the gas from the field south into the QGM-operated Black's Fork Gas Plant. The MMS converted this production because the RIK sales price could be higher than the non-arm's-length value reported by the producers.

Revenue Performance

FY 2007 was a very successful year for the RIK Natural Gas Program in Wyoming. Summary results are shown below. The RIK Natural Gas Wyoming Program achieved significant gains from the favorable processing rates and pricing terms received.¹¹

Wyoming Natural Gas Program		
	FY 2006	FY 2007
Total Volume (MMBtu)	5,453,918	45,662,862
Total Revenue	\$28,096,588	\$196,980,687
Revenue Gain (Loss)	(\$319,637)	\$13,618,085
Revenue Gain (Loss)/MMBtu	(\$0.06)	\$0.30
Percentage Gain/Loss	-1.14%	6.91%

Long-Term Strategy

In order to realize higher long-term royalty revenues from the Wyoming RIK Natural Gas Program, MMS entered into its first long haul transportation contract on the Rockies Express Pipeline (REX) jointly owned by Kinder Morgan, Sempra, and ConocoPhillips. This decision, based on extensive study of the Wyoming natural gas markets,

involved both MMS staff and outside commercial and legal consultants. The REX will transport natural gas from the Opal hub in Wyoming to delivery points in the Northeast. Expected completion of REX to Clarington, Ohio is January 2009. Interim service will provide midcontinent delivery points in spring 2008.



Map courtesy of Kinder Morgan

Transportation discounts, favorable pricing terms, and percentage-of-proceeds¹² processing contracts contribute to the success of the Wyoming RIK Program to date. The RIK Program Front Office staff has gained important market knowledge through this program as onshore markets are much less transparent than the Gulf of Mexico market. This knowledge will become even more important as MMS analyzes the best way to leverage its REX contract into the future.

¹¹ The loss in FY 2006 was due to diversification of pricing terms on portion of the sales volume.

¹² In percentage-of-proceeds processing contracts, the producer pays the plant operator a fee based on a percentage of the value of the liquids extracted from the natural gas, rather than a flat fee.

5 RIK Crude Oil Program

The RIK Crude Oil Program consists of three main sub-programs:

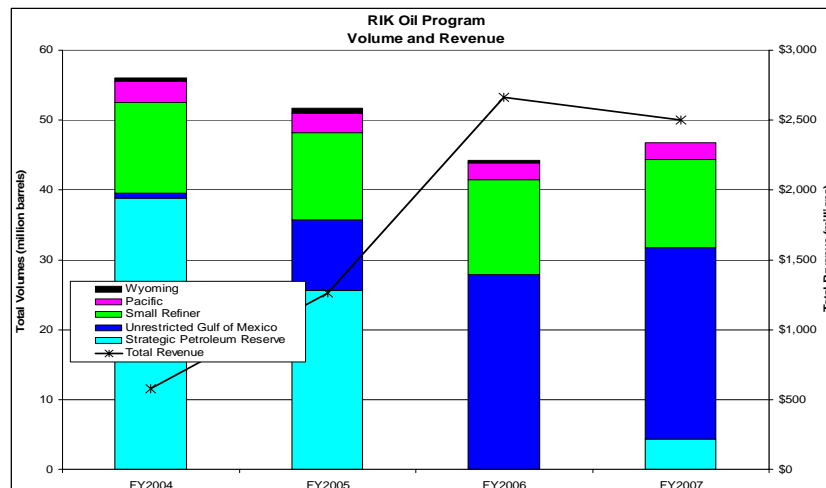
- The Unrestricted Program (Gulf of Mexico and Pacific),
- The Small Refiner Program, and
- The Strategic Petroleum Reserve Program (SPR).

The detailed histories of the three main sub-programs listed above follow. The Wyoming RIK Crude Oil Program began as a pilot project and was discontinued in April 2006. Declining production volumes inhibited the Wyoming RIK Crude Oil Program's ability to realize administrative cost savings. Also, changing crude oil market conditions in the state, due to low export capacity, made potential purchasers reluctant to enter into term contracts.

Wyoming RIK Crude Oil Program			
	FY 2004	FY 2005	FY 2006
Total Volume (bbls)	370,684	684,719	332,134
Total Revenue	\$12,481,128	\$31,914,004	\$15,089,214
Revenue Gain (Loss)	\$278,222	\$1,835,404	\$335,508
Revenue Gain (Loss)/bbl	\$0.75	\$2.68	\$1.01

The RIK Program continues to experience healthy competition in its offshore crude oil sales. In FY 2007, RIK conducted six separate sales and received competitive bids from 19 different companies. Sales packages were sold to 11 different counterparties during the year. These sales were supported by over a dozen transportation and other service contracts during FY 2007.

Below is a chart detailing the changes in total volumes and revenues in the RIK Crude Oil Program from FY 2004 through FY 2007. Volumes have remained relatively constant in the Small Refiner and Unrestricted Pacific Programs. The Unrestricted Gulf of Mexico Program has experienced the most change in volumes over the years due to the SPR Program. The volumes that have been used to fill the SPR have come out of the Unrestricted Gulf of Mexico Program.



5.1 Unrestricted Oil Program

As the name implies, there are no mandated eligibility requirements to participate in this program. Any and all companies meeting basic credit requirements are eligible to participate. Over the years, there have been many diverse participants in this program, from major oil companies to financial holding companies.

This program is subject to the most volume fluctuations as its volumes have often been diverted to the SPR over the past 4 years. The majority of the eligible leases in the Gulf of Mexico are being taken in kind and there have been very few new leases converted to RIK status in recent years. As new major production projects in the Gulf of Mexico begin producing, they become candidates for RIK. The last example of this was the Mad Dog and Holstein projects in the Southern Green Canyon area of the Gulf of Mexico that began producing in 2005. There are several new projects that are expected to begin producing soon that may be considered for the RIK Program.



Below is a summary of the revenue performance measurements for the Unrestricted Program over the past 4 years. Returns were lower in FY 2006 due to specific market conditions in the crude oil market and the hurricanes of fall 2005. In FY 2007, the Gulf Unrestricted Program realized revenue gains above fair market value of more than \$11 million, a substantial increase over the previous year. These gains are primarily attributable to: (1) RIK benefitting from crude oil price increases during FY 2007, because RIK crude oil sales contracts use “calendar month” pricing instead of earlier “trade month” pricing used in some industry sales contracts; and (2) RIK obtaining premiums from purchasers on certain crude packages for which the purchaser entered into lucrative downstream financial transactions and passed on a portion of those benefits to RIK.

Gulf of Mexico Unrestricted Program				
	FY 2004	FY 2005	FY 2006	FY 2007
Total Volume (bbls)	778,876	10,079,297	27,865,100	27,458,666
Total Revenue	\$28,634,061	\$527,705,356	\$1,685,390,839	\$1,590,416,840
Revenue Gain (Loss)	\$330,971	\$5,741,065	\$1,504,870	\$11,267,888
Revenue Gain (Loss)/bbl	\$0.42	\$0.57	\$0.05	\$0.41

Pacific Unrestricted Oil Program

The Pacific RIK Crude Oil Program originally began as part of the Small Refiner Program. In late 2005, many of the small refiners either no longer qualified for the program or were no longer interested in bidding on the Pacific RIK production. As a result, the production was moved to the Unrestricted Program.

Currently, approximately 6,000 barrels per day are taken in kind from one offshore field, Santa Ynez. In previous years, two other offshore fields were included, Dos Cuadras and the Grace Units. The revenue gain per barrel has always been significant in this program due to the strategic location of the production and the unique demand for this supply. The location is remote from foreign oil delivery points. The production is also directly connected via pipeline to the refinery in the local area. Due to both of these factors, this production has a significant competitive advantage.

Pacific RIK Unrestricted Oil Program				
	FY 2004	FY 2005	FY 2006	FY 2007
Total Volume (bbls)	3,070,044	2,768,916	2,424,214	2,397,646
Total Revenue	\$90,612,399	\$105,848,071	\$131,190,275	\$126,955,028
Revenue Gain (Loss)	\$4,987,498	\$2,770,092	\$3,028,152	\$4,303,449
Revenue Gain (Loss)/bbl	\$1.62	\$1.00	\$1.25	\$1.79

5.2 Small Refiner Program

The Small Refiner Program began in the 1970s as a program designed to assist



domestic small refiners by providing a reliable supply of crude oil at equitable prices. Historically, these eligible refiners have supplied U.S. military operations with jet fuel and other energy needs on military bases. Because these small refiners typically do not have any production of their own, the RIK Small Refiner Program has served an important role in helping small refiners acquire feed stock. A Small Refiner,

as defined at 30 CFR section 208.2, means a refiner of crude oil with a total operable atmospheric crude oil distillation capacity of less than or equal to 125,000 barrels per calendar day, and fewer than 1,500 employees.

In FY 2007, MMS sold all RIK packages in its Small Refiner Program for a term of 1 year, providing a revenue gain of \$3 million or 24 cents per barrel of oil.

Small Refiner Program				
	FY 2004	FY 2005	FY 2006	FY 2007
Total Oil Volume (bbls)	12,942,188	12,556,031	13,586,984	12,627,650
Total Revenue	\$447,297,868	\$597,608,325	\$833,577,818	\$781,158,791
Revenue Gain (Loss)	\$2,873,433	\$1,803,837	(\$1,377,911)	\$3,043,275
Revenue Gain (Loss)/bbl	\$0.22	\$0.14	(\$0.10) ¹³	\$0.24

Over the course of the last 4 years, the Small Refiner Program has experienced decreasing small refiner participation. The decreased participation can be

¹³ Returns were negative in FY 2006 due to specific market conditions in the crude oil market and the hurricanes of fall 2005.

attributed to a lack of interest and a more competitive market, forcing a number of small refiners to merge thus becoming ineligible for the program.

In accordance with 30 CFR 208.4,¹⁴ MMS performed a Determination of Need for the Small Refiner Program. The evaluation was completed in June 2008 and recommended a need for the Small Refiner Program. This is the third time MMS has conducted a full analysis..

5.3 Strategic Petroleum Reserve Program

The MMS partners with the DOE to fill the remaining capacity of the SPR. In order to receive crude oil that meets the quality specifications for the SPR sites, DOE uses RIK oil in exchange contracts. The MMS arranges for delivery of the royalty oil from offshore production facilities to onshore market centers and then transfers the production to DOE. The DOE then contracts with industry partners to exchange the royalty oil for oil of the appropriate specifications at SPR sites.



Provided by US Department of Energy

The MMS previously worked with DOE to add crude oil to the SPR from 1999 to 2000 and 2002 to 2005. This effort brought the volume of the SPR to 700 million barrels. The MMS and DOE began the current SPR fill initiative in July 2007 to fill the SPR to its capacity of 727 million barrels. MMS suspended delivery of RIK oil for the current initiative at the end of June 2008.

Below is the volume and estimated market value of the production transferred to DOE for SPR purposes. This information is as reported in the MMS Annual Financial Reports.¹⁵

Strategic Petroleum Reserve Program				
	FY 2004	FY 2005	FY 2006	FY 2007
Total Volume (bbls)	38,813,488	25,608,852	0	4,304,386
Total Value	\$1,213,007,293	\$1,194,617,678	\$0	\$306,190,550

¹⁴ 30 CFR 208.4(a) states: "The Secretary may evaluate crude oil market conditions from time to time. The evaluation will include among other things, the availability of crude oil and the crude oil requirements of the Federal Government, primarily those requirements concerning matters of national interest and defense. The Secretary will review these items and will determine whether eligible refiners have access to adequate supplies of crude oil and whether such oil is available to eligible refiners at equitable prices. Such determinations may be made on a regional basis. The determination by the Secretary shall be published in the Federal Register..."

¹⁵ US Department of the Interior, Minerals Management Service, Annual Financial Report FY 2005, <http://www.mms.gov/adm/PFD/FinanceReport2005.pdf>.



Bryan Mound SPR site
Photo provided by US Department of Energy

Conversions of Leases from RIV to RIK in FY 2007 for SPR

One property was converted from RIV to RIK status in the RIK Crude Oil Program during FY 2007. The MMS converted production from block Grand Isle 115, also known as the Gomez property, in order to increase the volumes provided to DOE for use in filling the SPR. The MMS receives no revenue for production transferred to the SPR Program.

6 Energy Policy Act of 2005 Report Requirements

The report covers the information required by Section 342 (e)(2) of the Energy Policy Act of 2005 (EPAAct). The EPAAct requires that for each of fiscal years 2006-2015 in which the United States takes oil or gas royalties in kind from production in any State or from the outer Continental Shelf (OCS), excluding royalties taken in kind and sold to refineries under subsection (h), the Secretary shall submit to Congress a report that describes:

- (A) the one or more methodologies used by the Secretary to determine compliance with subsection (d),¹⁶ including the performance standard for comparing amounts received by the United States derived from royalties in kind to amounts likely to have been received had royalties been taken in value;
- (B) an explanation of the evaluation that led the Secretary to take royalties in kind from a lease or group of leases, including the expected revenue effect of taking royalties in kind;
- (C) actual amounts received by the United States derived from taking royalties in kind and costs and savings incurred by the United States associated with taking royalties in kind, including administrative costs savings and any new or increased administrative costs; and
- (D) an evaluation of other relevant public benefits or detriments associated with taking royalties in kind.

(A) Methodologies to Compare RIK and RIV values

Conversion from RIV to RIK

The MMS completes a financial analysis to determine whether a property should be converted to RIK using public industry information, pipeline system maps, energy publications, transportation routes, processing options, downstream

¹⁶ Subsection (d) states that “Benefit to the United States Required—The Secretary may receive oil or gas royalties in-kind only if the Secretary determines that receiving royalties in-kind provides benefits to the United States that are greater than or equal to the benefits that are likely to have been received had royalties been taken in-value.”

marketing routes, and index pricing. This research is focused on each property's existing economic case or royalty in value payments and the potential options for economic improvement. The MMS includes transportation and/or processing bids in building this economic case. A comparison of the dollar amount the Federal Government is currently receiving in value along with the calculated value that would be received in kind is performed. Prior to conversion, MMS completes a conversion document recommending whether the pipeline/properties should be converted to in kind which contains pipeline maps showing properties analyzed, spreadsheet analysis comparing RIK economics versus RIV reported economics and the technical written economic case.

Revenue Performance Metrics

Given the fiduciary responsibility to the taxpayer, MMS measures the performance of the RIK Program against a calculated Fair Market Value (FMV) benchmark that approximates the royalty value that the RIV Program would have received. Market price and basis volatility create risk exposure that RIK performance could be below the FMV benchmark due to the difference between the pricing mix used by RIK for selling the commodity and the pricing mix used in the FMV benchmark.

The MMS computes the FMV benchmark range specific to the commodity, and uses this as the performance standard for measuring RIK performance. To compute the FMV benchmark, MMS establishes a benchmark price that reflects major liquid pricing point(s) proximal to RIK properties. This benchmark price is adjusted to reflect transportation, quality, processing, and various marketing possibilities and any adjustments that may have been derived from RIV or other commercial market transactions. This results in a FMV benchmark for comparison to RIK actual values, netted back to the lease.

These measures meet statutory requirements to reflect commercial fair market value and a proxy for RIV. They recognize fair market value as a range of values, differentiate between forward-looking decision analysis and backward-looking measurement, use as much RIV data as possible, and use RIV data to calibrate commercial market data. (See Section 3.3 Revenue Performance in this report for more information.)

(B) Evaluation Supporting Conversion of Leases to RIK Status in FY 2007

The MMS converted seven different natural gas sales packages, containing 156 leases, and one crude oil property during FY 2007. This information was presented in sections 4.1 and 4.2 for the natural gas program and section 5.3 for the crude oil program. It is also presented below.

Gulf of Mexico Natural Gas Conversions (see Section 4.1)

Dauphin Island Gathering System (DIGS)

The MMS converted natural gas royalties from RIV to RIK status for six meters (12 leases/agreements) totaling approximately 16,000 MMBtu/day on the Dauphin Island Gathering System (DIGS) starting November 1, 2006. Duke Energy Field System (DEFS) operates DIGS, which moves gas from the Mobile, Viosca Knoll, and Main Pass areas in the Gulf of Mexico to DEFS's Mobile Bay processing plant onshore and downstream markets. The DIGS package included three meters containing Alabama 8(g) production. The MMS viewed the DIGS RIK conversion as commercially revenue neutral because MMS negotiated the same transportation and processing rates as the producers. However, the DIGS portfolio showed revenue gains because MMS sold the DIGS natural gas at premiums to the fair market value benchmarks. The RIK purchaser on DIGS was able to offer a price higher than index, because they could use MMS's DIGS transportation contract to access numerous downstream markets, thus providing them with greater flexibility to resell the gas in the highest priced market.

Destin Pipeline

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Discovery Gas Transmission

The MMS converted natural gas royalties from RIV to RIK status for nine meters (18 leases/agreements) totaling approximately 30,000 MMBtu/day on the Discovery Gathering and Transmission Pipelines beginning November 1, 2006. This pipeline transports natural gas production from the South Timbalier, Grand Isle, Ewing Bank, Green Canyon, and Mississippi Canyon areas offshore of Louisiana. The MMS receives the same average transportation rate as producers. The MMS also received a firm transportation rate to guarantee delivery from Discovery into the market with the highest net value. Processing takes place at the LaRose Gas Plant, where MMS received a processing rate equal to or better than the producers. The MMS converted this production to RIK due to the opportunity to move the gas to a market with a higher value, with revenue neutral transportation and processing costs.

Sea Robin Gas Pipeline

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(22 leases/agreements) totaling approximately 27,800 MMBtu/day on the Sea Robin Gas Pipeline System starting November 1, 2006. Sea Robin transports natural gas from the East Cameron, Vermilion, South Marsh Island, and Eugene Island areas offshore of Louisiana to the Amerada Hess-owned Sea Robin Gas Plant and downstream markets. The MMS received transportation and processing rates equal to the producers, making this at least a revenue neutral portfolio.

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Onshore Natural Gas Conversions (see Section 4.2)

Jonah Field (Opal)

The MMS converted natural gas royalties from RIV to RIK from 41 lease/agreements totaling approximately 100,000 MMBtu/day from the Jonah field in Wyoming's Green River Basin beginning January 1, 2007. The Jonah Gas Gathering System transports this gas south into the Williams' Opal Gas Plant, Enterprise's Pioneer Gas Plant, or into Anadarko's Rendezvous Gathering System. The MMS converted this production because RIK received a processing contract at the available natural gas plant that is expected to add significant value.

Pinedale Anticline

The MMS converted natural gas royalties from RIV to RIK from six leases totaling approximately 20,000 MMBtu/day from the Pinedale field also in the Green River Basin of Wyoming beginning January 1, 2007. The Questar Gas Management (QGM) gathering system transports the gas from the field south into the QGM-operated Black's Fork Gas Plant. The MMS converted this production because the RIK sales price could be higher than the non-arm's-length value reported by the producers.

Crude Oil Conversion-Strategic Petroleum Reserve (SPR) (see Section 5.3)

One property was converted from RIV to RIK status in the RIK Crude Oil Program during FY 2007. The MMS converted production from block Grand Isle 115, also known as the Gomez property, in order to increase the volumes provided to DOE for use in filling the SPR. The MMS receives no revenue for production transferred to the SPR Program.

(C) Revenues, Costs, and Savings Incurred by RIK

The quantitative benefits of the RIK Program include reduced administrative costs, a time value of money benefit from receiving payments earlier than RIV payments, and additional royalty revenue. During FY 2007, the benefits of the RIK Program totaled over \$63 million.

Total Benefits of RIK Program - FY 2007			
	Crude Oil	Natural Gas	Total
Administrative Savings	\$1,826,810	\$1,726,582	\$3,553,392
Time Value of Money Benefit	\$2,306,589	\$782,483	\$3,089,072
Revenue Performance	\$18,614,613	\$37,920,116	\$56,534,729
Total Benefits	\$22,748,012	\$40,429,181	\$63,177,192

Details of these benefits are presented in Section 3 of this report.

(D) Other Relevant Benefits or Detriments

Through the activities of the RIK Program, MMS staff has gained significant market knowledge regarding specific oil and natural gas markets. This knowledge is shared with other MMS offices, such as the Compliance and Asset Management to better MMS operations. The sharing of information between the RIK Program and other areas was an area of significant focus in FY 2007 and formal procedures for sharing information are now documented.

Also, although not necessary in FY 2007, the RIK Program is in a unique position to provide data necessary in times of natural disasters, such as the hurricanes in 2005. The RIK Program answered special information requests from both the DOE and the Department of the Interior regarding Gulf of Mexico infrastructure after the 2005 hurricanes. The RIK Program stands ready to provide information whenever needed in future similar situations in order to support continuity of operations.

7 Conclusions and Preview of FY 2008

Fiscal Year 2007 was a dynamic year for the RIK Program. The RIK Crude Oil Program saw the resumption of the SPR Program resulting in changes in the other oil programs. The RIK Natural Gas Program experienced large changes with the addition of five new sales packages to the Gulf of Mexico Program and two new packages to the Wyoming Program.



FY 2008 looks to be another successful and dynamic year for the RIK Program.

While the RIK Program does not plan to add any additional sales packages to either the Crude Oil or Natural Gas Programs, additional volumes may be added to current sales packages in the Natural Gas Program. The Wyoming natural gas sales packages will continue to grow in volume as production increases in the area. The MMS will also begin to utilize its long-haul transportation on the Rockies Express Pipeline during FY 2008.

Also important during FY 2008, will be evaluating and implementing the changes recommended by external and internal reviews of the RIK Program. In March 2007, the Subcommittee on Royalty Management (Subcommittee) was appointed by the Secretary of the Interior to conduct an independent prospective examination of the MMS's Minerals Revenue Management program, including a review of the Royalty in Kind Program. The Subcommittee's report was published in December 2007.¹⁷ The review of the RIK Program confirmed that there are clear advantages to the RIK approach, acknowledging the benefits described earlier in this annual report.

The Subcommittee also made a number of recommendations regarding challenges that the RIK Program needs to address. The Subcommittee provided recommendations in six major areas regarding the RIK Program.

- Growth of the RIK Program,
- Market position, organizational structure, and incentives,
- The RIK Crude Oil Program,
- Personnel breadth and depth,
- Performance measures, and
- RIK auction procedures.

¹⁷ Report to the Royalty Policy Committee, Mineral Revenue Collection from Federal and Indian Lands and the Outer Continental Shelf, Submitted by the Subcommittee on Royalty Management, December 17, 2007.

The report acknowledged the challenges of operating “what essentially is a business within the public sector” and recommended that MMS explicitly recognize the commercial nature of the RIK Program. The Subcommittee also made recommendations regarding increasing the transparency of the RIK processes.

The Subcommittee presented 31 separate recommendations regarding the RIK Program. The Department created an action plan to address the recommendations. Twelve of the RIK recommendations were completed as of July 2008. Many of the recommendations will be included in the RIK Strategic Business Plan for the years 2010-2012.

“...the advantages of including an RIK approach among MMS’s asset management options are clear, and MMS’s process for evaluating the feasibility of RIK versus RIV appears to be rigorous and effective.”

In testimony before the Energy and Mineral Resources Subcommittee of the House Committee on Natural Resources, on March 11, 2008, the Government Accountability Office (GAO) addressed four areas of concern regarding the RIK Program. GAO stated that: (1) the gas RIK Program does not have adequate assurance that it is collecting gas royalties owed, because it does not have the same production verification processes as the oil RIK Program; (2) MMS’s measurement of RIK sales revenue performance did not account for uncertainty in estimates of in value payments; (3) MMS may be over or understating the value of early RIK payments due to assumptions on when in value payments are received and the interest rate used; and (4) information technology costs were excluded from the administrative cost comparison.

MMS is taking steps to be responsive to GAO’s concerns. The RIK Program is evaluating the gas production verification process in conjunction with the Offshore Minerals Management, and beginning in FY 2008, is evaluating reporting RIK revenue performance as a range to account for uncertainty in establishing fair market value. Regarding value of early payments, for FY 2007, MMS determined that the three percent rate used in its analysis was actually lower than the Federal funds rate and other measures of the time value of money. MMS will use the federal funds rate of return beginning in FY 2008 for its time value of money calculation. However, MMS has since verified its assumption that in value payments are rarely paid early. Furthermore, MMS does not agree that information technology (IT) costs should be included in the administrative cost comparison, since IT costs are highly variable for both the in kind and in value programs, rendering a cost comparison virtually meaningless.

In May 2008, the Office of Inspector General (OIG) issued an evaluation report on the RIK Oil Sales Process. The OIG noted that MMS has taken some important and necessary steps to enhance the overall performance and effectiveness of the

RIK Program and has responded positively to recommendations contained in the RPC Report. The report also recommended six areas for improvement which included: (1) developing a comprehensive operations manual for the Crude Oil Front Office; (2) obtaining legal review of all existing contract documents; (3) developing guidelines for oil sales contracting; (4) addressing staffing needs, position qualifications, and training; (5) implementing a pilot project to evaluate the viability of other sales methods; and (6) using longer term oil sales contracts. MMS agreed with recommendations (1) through (4) and is taking steps to implement them. For recommendations (5) and (6), MMS will evaluate alternative sales methods to determine if a pilot project would be appropriate and will evaluate the benefit of offering longer term oil sales contracts in its upcoming sale in August 2008.

The MMS looks forward to continuing the RIK Program and making it a stronger, even more successful program during FY 2008 and beyond.

Additional Revenue Performance Information

**RIK Natural Gas - RIK Values vs. FMV Benchmark Values
FY 2007 (Oct-06 Through Sep-07) Totals**

	RIK Volumes Sold (MMBtu)	RIK Revenues	Revenue Gain (Loss) vs. FMV Benchmark Price	Revenue Gain (Loss) Per MMBtu	Percent Gain / Loss
Gulf of Mexico	232,887,752	\$1,632,382,454	\$24,302,030	\$0.104	1.49%
Wyoming	45,662,862	\$196,980,687	\$13,618,085	\$0.298	6.91%
Total	278,550,614	\$1,829,363,142	\$37,920,116	\$0.136	2.07%

**RIK Crude Oil - RIK Values vs. FMV Benchmark Values
FY 2007 (Oct-06 Through Sep-07) Totals**

	RIK Volumes Sold (bbls)	RIK Revenues	Revenue Gain (Loss) vs. FMV Benchmark Price	Revenue Gain (Loss) Per bbl	Percent Gain/ Loss
Small Refiner	12,627,650	\$781,158,791	\$3,043,275	\$0.241	0.39%
Unrestricted	29,856,312	\$1,717,371,868	\$15,571,338	\$0.522	0.91%
Total	42,483,962	\$2,498,530,659	\$18,614,613	\$0.438	0.75%

**RIK Totals - RIK Values vs. FMV Benchmark Values
FY 2007 (Oct-06 Through Sep-07) Totals**

	RIK Volumes Sold (BOE)	RIK Revenues	Revenue Gain (Loss) vs. FMV Benchmark Price	Revenue Gain (Loss) Per BOE	Percent Gain/ Loss
RIK Total	90,509,930	\$4,327,893,801	\$56,534,729	\$0.625	1.31%

Notes:

1. Revenue performance metrics are calculated by individual property for oil and by pipeline for gas. The results are rolled up into the reporting categories above in order to protect proprietary information regarding RIK sales. More detailed information may be provided upon request.

2. The MMS uses a portfolio approach in its RIK sales; therefore, losses may occur in individual sales packages due to diversification in purchasers, pricing, and other contract terms for overall risk mitigation. The MMS is formalizing its process for review of revenue performance results and its role as a management tool in the decision process of keeping a sales package in the RIK Program.