EVALUATION OF VULNERABILITIES TO UNDERREPORTING: Royalty-in-Value versus Royalty-in-Kind

Report No. 2002-I-0044

August 2002

United States Department of the Interior

OFFICE OF INSPECTOR GENERAL
Washington, D.C. 20240

September 12, 2002

Memorandum

To: Director, Minerals Management Service

From: Roger La Rouche Roger LaRouche
Assistant Inspector General for Audits

Subject: Advisory Report on Evaluation of Vulnerabilities to Underreporting: Royalty-in-Value Versus Royalty-in-Kind (No. 2002-I-0044)

The attached Advisory Report presents the results of our comparison of the Minerals Management Service's (MMS) royalty-in-value (RIV) program to its royalty-in-kind (RIK) program to determine which was more vulnerable to underreporting. We performed the evaluation at the request of the Deputy Secretary.

We determined that the RIV program was more vulnerable because the lessee established the basis for valuing the oil and gas and the transportation and processing costs. The RIK program was not as vulnerable because MMS received actual proceeds from oil and gas sales and paid actual transportation and processing costs. However, we did find instances where RIV would be preferable. In addition to these findings, we concluded that MMS could improve its controls over the RIK program in the areas of gas imbalances, credit line approval, manual data entry, and sales contract limitations.

We conducted our evaluation from January through February 2002 at RIK program offices in Lakewood, Colorado, and at MMS Compliance and Asset Management offices in Houston, Texas, and Washington, D.C. Our evaluation was performed in accordance with the President's Council on Integrity and Efficiency Quality Standards for Inspections.

We presented the results of our evaluation to you, the Deputy Secretary, and the Assistant Secretary for Land and Minerals Management on April 29, 2002 and the Deputy Director of MMS, the Associate Director for Minerals Revenue Management, and other MMS officials on May 3, 2002. MMS management officials generally concurred with our conclusions and indicated that they have initiated actions to address the control issues noted in our report.

A response to this report is not required. However, we would appreciate being kept informed of actions taken regarding the matters contained in our evaluation. We will list this advisory report in our semiannual report to Congress, as required by section 5(a) of the Inspector General Act (5 U.S.C. app.3).

Attachment: PowerPoint Presentation

Objective

- To compare the risks of underreporting oil and gas royalties due the Government between Royalty-In-Value and Royalty-In-Kind processes.
- To identify opportunities for improved controls for reducing vulnerabilities with the Royalty-In-Kind process.

Background

- The Mineral Leasing Act of 1920 and the Outer Continental Shelf Lands Act of 1953 authorize the Federal Government to receive its royalty share of oil and gas production either in-value or in-kind.
  - Royalty-In-Value (RIV): MMS receives payments for oil and gas based on values assigned by lessee.
  - Royalty-In-Kind (RIK): Royalties are received by MMS as products (oil/gas) from lessees that MMS then markets and sells.

- MMS collects, accounts for, and disburses to its recipients about $5 billion in mineral revenues annually.
- Historically, most of these revenues have been received in the form of RIV payments.
- MMS started its first RIK by taking gas from the Gulf of Mexico in 1995.

- In 2001, MMS published “Implementing Royalty in Kind, Business Processes and Support Systems, Road Map to the Future” which included:
  - Creating processes and organizational structures
  - Acquiring technology solutions
  - Changing reporting requirements
  - Communicating with industry

Current Production Status

- Total Daily Royalty Production
  - Onshore – 27,000 barrels oil, 682 million cubic feet gas
  - Offshore – 220,000 barrels oil, 2.1 billion cubic feet gas
- RIK exists:
  - Onshore - Wyoming total royalty production is 10,000 barrels/day
    - Oil – 40% of total production (4,000 barrels/day)
  - Offshore – Gulf of Mexico
    - Oil – 50% of production (110,000 barrels/day)
    - Gas – 15% of production (320 million cubic feet/day)

    Offshore – Pacific Oil

    - 14,000 barrels/day royalty production
    - 9,300 barrels/day RIK

Future Production Status

- MMS management stated that, during 2002, it will increase RIK for Gulf oil to 80% of total production to fill the Strategic Petroleum Reserve

RIK Process versus RIV Process

RIK Process

1. **Selects Properties** to pay in-kind
2. **MMS** Sells, through competitive bids, to Purchaser **
3. Oil/Gas is Transported
4. **Purchaser** Buys Oil/Gas From MMS

RIV Process

1. Operator/Lessee pays MMS
2. MMS Analyzes Production
3. MMS Conducts Audit
4. MMS Conducts Case Resolution

** the Minimum Acceptable Bid is a <u>key control</u> that MMS uses to determine whether a Property should be converted to RIK or remain RIV. The bid must MEET or BEAT what would've been collected through RIV.

RIV Underpayment Vulnerabilities

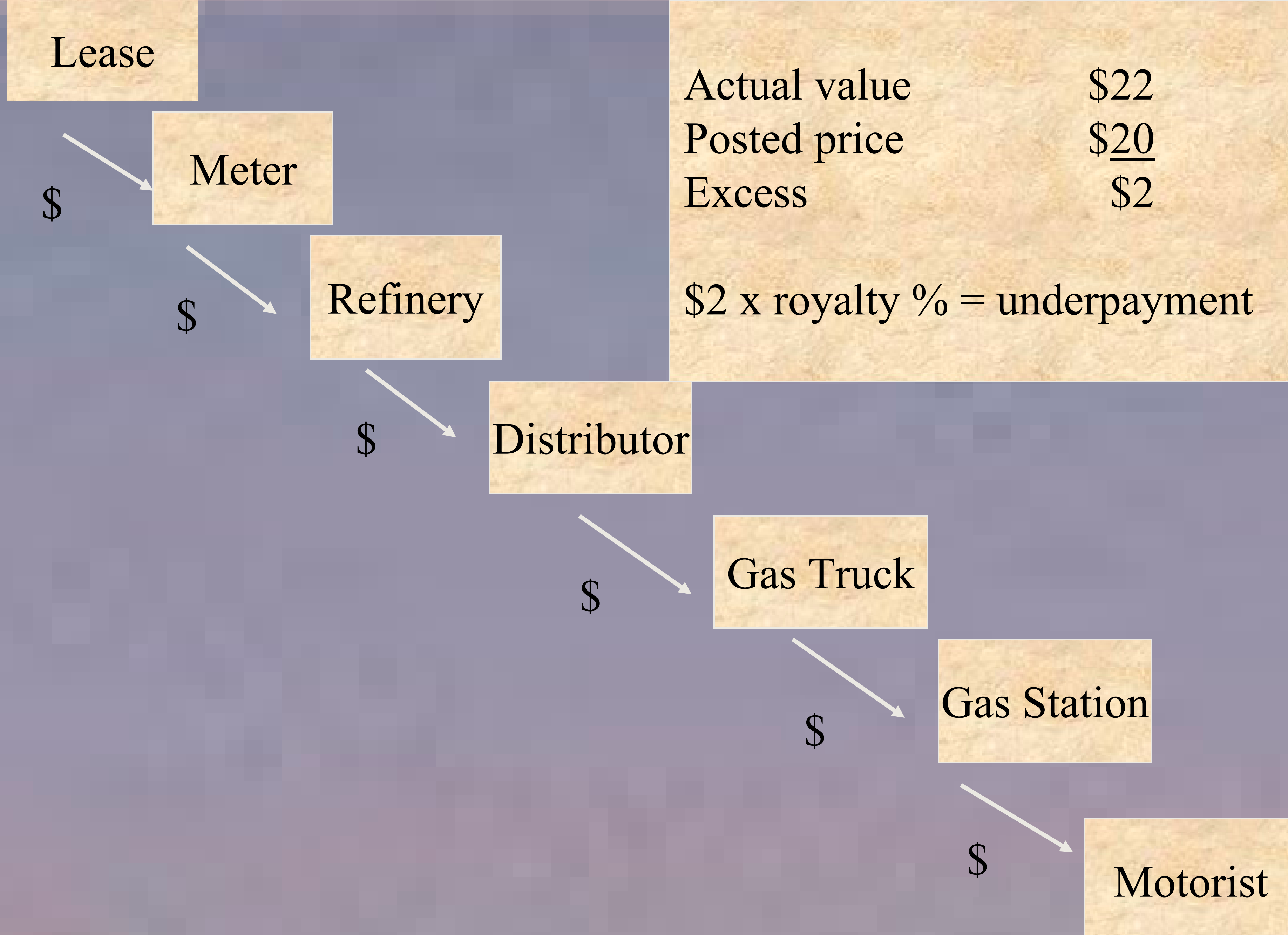
- Valuation is reported by lessee
- Transportation and processing costs are deducted by lessee
- 20 years of audits/Qui Tam resulted in underpayment detections totaling $2 billion
  - Oil posted prices did not reflect actual proceeds
- Accuracy of valuation and deductions taken must be verified.

RIV Posted Price Example

- A large vertically integrated oil company can buy and sell oil from within its own company.
- Allowed the company to control the value
- Posted price of $20/barrel
- Sold the processed oil products for the equivalent of $22/barrel
- Only paid royalties for the posted price of $20 which was $2/ barrel below actual value

Actual value	\$22
Posted price	\$20
Excess	\$2

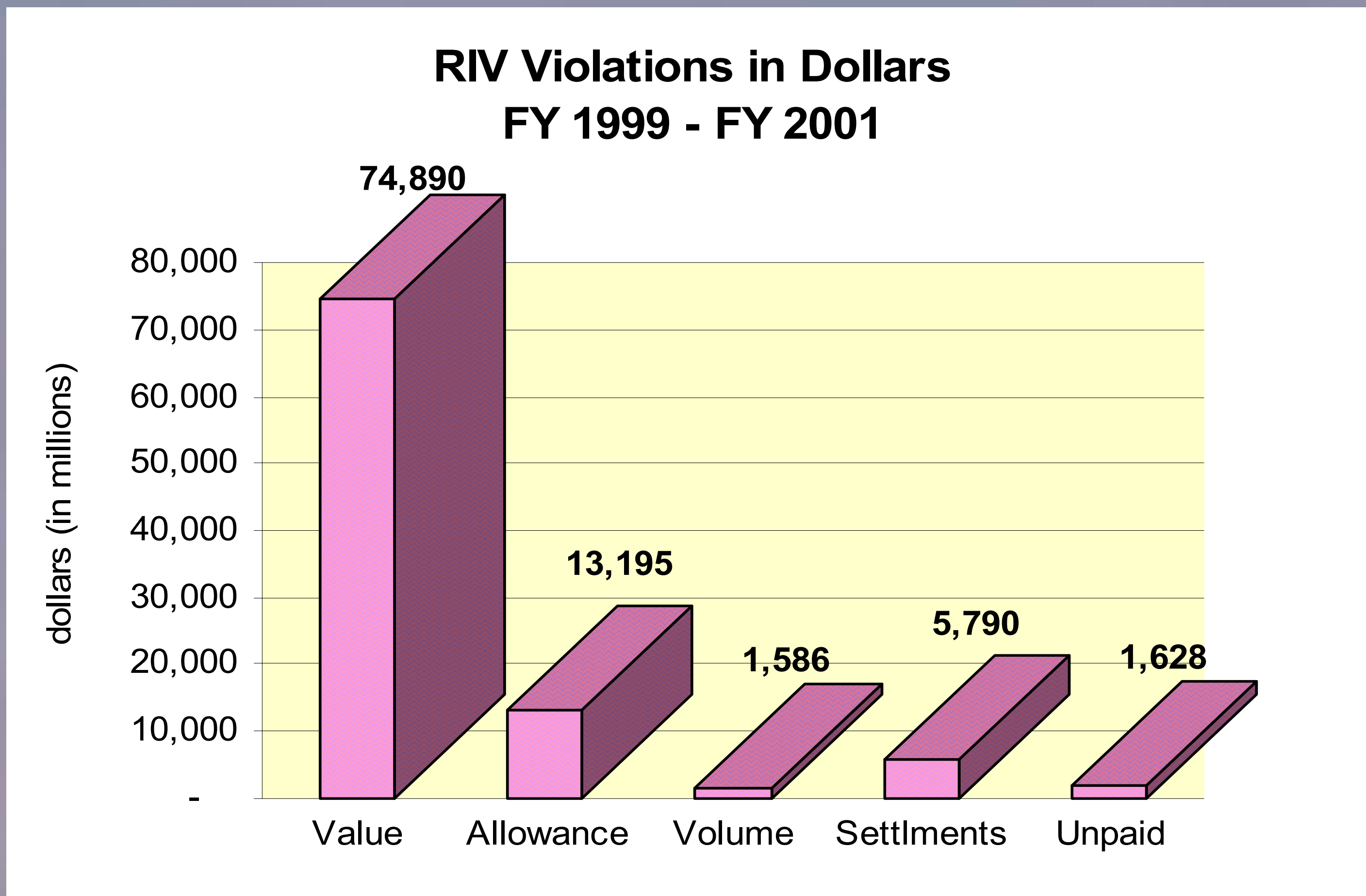
\$2 x royalty % = underpayment



Amount of Underpayments - RIV

- Since 1982, MMS and OIG Audits and Investigations reported $2 billion in royalty underpayments.

MMS RIV Audit Findings



RIV Efficiencies

- On-Shore
  - Wells with low volume
  - Thin markets
  - High transportation costs

RIK Vulnerabilities

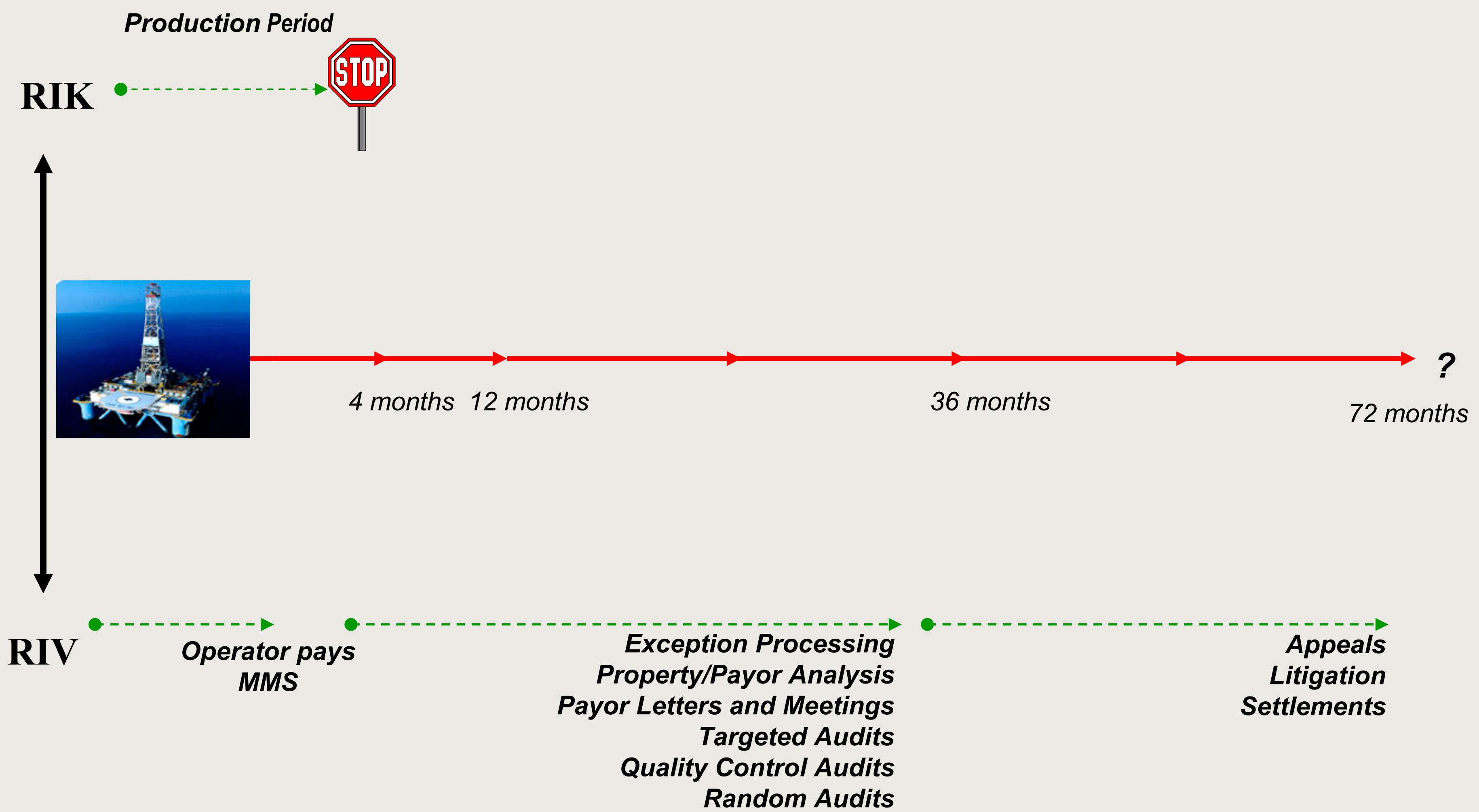
- Imbalances
  - Imbalances occur when the purchaser receives more or less oil/gas than entitled.
  - Imbalances are a frequent occurrence.
  - The government is vulnerable until the imbalance is identified, reconciled and settled in a timely manner.

RIK Efficiencies

- Valuation established by MMS using fair-market sale and receives actual proceeds from sale
  - Certainty of payments and potential increase of revenue over RIV
- MMS negotiates and pays actual transportation and processing costs
  - Certainty of costs
- Reduces need for MMS verification audits
  - Utilizes less resources:
    - Audit
    - Litigation

RIK / RIV Performance

- RIK (FY 2001)
  - 21 employees
  - Collected $1.4 billion
  - 4 month transaction cycle
- RIV (FY 2001)
  - About 322 employees
  - Collected about $6 billion
  - 6+ year transaction cycle


Production Period
RIK
STOP
4 months
12 months
36 months
72 months
?
RIV
Operator pays MMS
Exception Processing
Property/Payor Analysis
Payor Letters and Meetings
Targeted Audits
Quality Control Audits
Random Audits
Appeals
Litigation
Settlements

Conclusion

- RIV is much more susceptible to underreporting than RIK.
- RIV allows lessee to report valuation basis and take deductions for transportation and processing costs.
- RIK is substantially LESS susceptible because valuation is established by fair-market sale, MMS receives actual proceeds from sales, MMS negotiates and pays actual transportation and processing costs
- However, there are opportunities to improve controls within the RIK process.

Opportunities for Improved RIK Controls & Increased Revenues

- Gas imbalances
- Approval of Credit
- Manual data entry
- Limitation on Sales Contract Length

Gas Imbalances

- Gas imbalances occur when the producer/lessee delivers to MMS gas volumes that either exceed or do not meet the requirements of the lease.
- The responsibility for managing oil and gas imbalances are split between:
  - Oil - the RIK/CAM program offices
  - Gas - the Compliance and Asset Management (CAM) Group

- According to the “Operator Gas Imbalance Draft Assessment” (March 2002)
  - Some gas imbalances have not been worked as far back as April, 2001. Most of the imbalances have been unresolved since June, 2001.
  - CAM’s is responsible for resolving imbalances of about 240 operators and 156 FMP’s.
  - RIK Program Office and CAM’s will be assessing the underlying causes of the gas imbalances and will develop plans for their prompt resolution.
- However, oil imbalances were generally identified within 30 days of production by the RIK/CAM program offices.

Suggestion

- We suggest that the Director, MMS adopt and implement the processes used by the RIK/CAM program offices for oil imbalances as a model for addressing the gas imbalances.

Approval of Credit

- Only 2 people oversee and approve credit lines.
- Approval from upper management is not utilized.

We suggest that the RIK program office require senior management approval of all credit lines authorized for RIK production purchases.

Manual Data Entry Processes

- The RIK program uses an extensive amount of manual data entry processes that are not independently verified. Manual data entry processes are employed in the assemble minimum acceptable bid, conduct bid analysis, credit process and analyze post production. For example:
  - During the credit process, RIK personnel manually enter critical information from a company's financial statements into a credit scoring model that is relied upon to determine a company's credit line. In addition, key formulas within the credit scoring model are also manually entered.

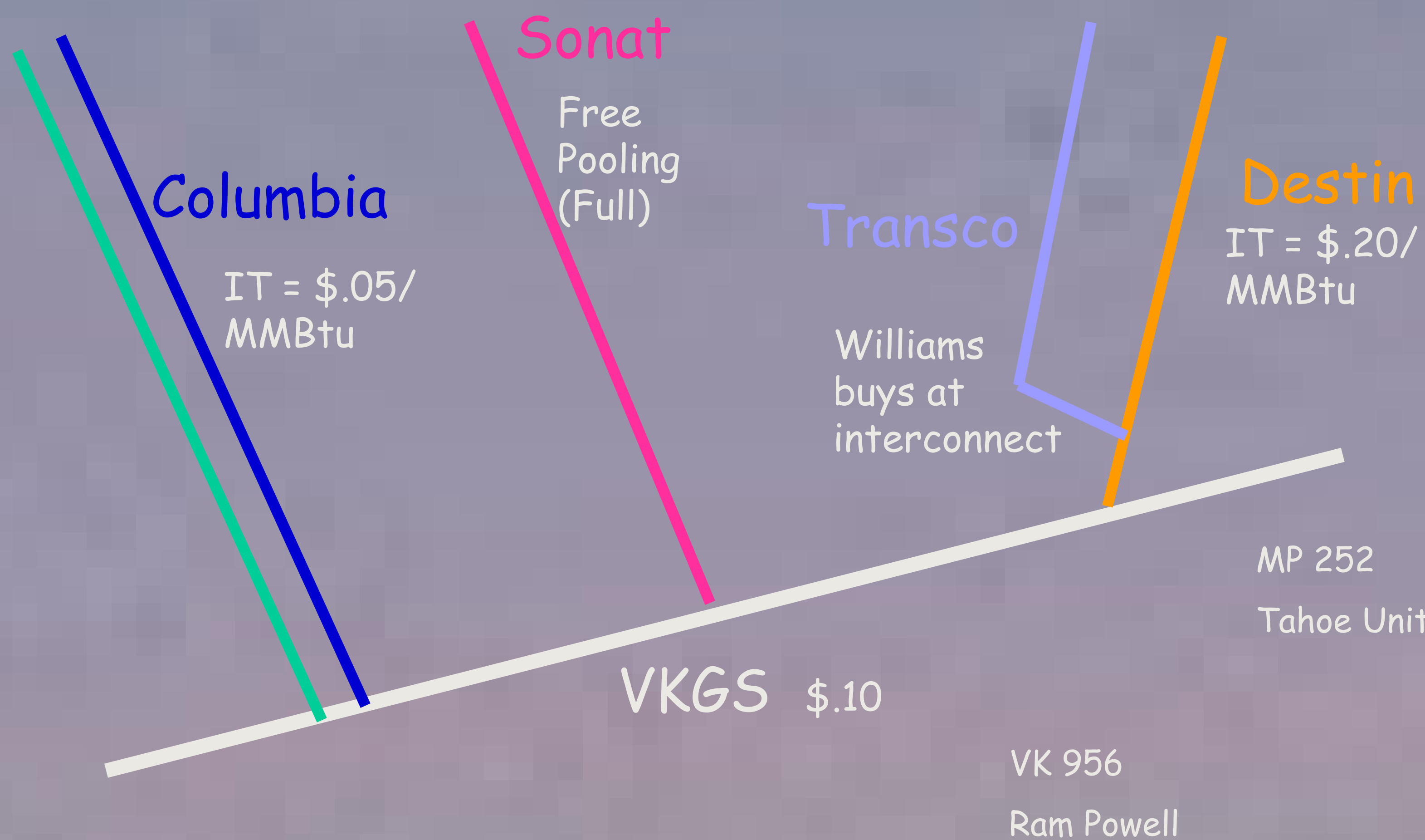
Suggestion

- We suggest that MMS implement an independent review procedures for all manual data entry processes until automated systems are employed to replace these processes.

RIK Contract Length

- Contract length varies only from 4 to 12 months.
- This prevents MMS from offering more lucrative contracts to buyers of RIK production and prevents MMS from receiving better discounts for transportation.
- Longer contracts could provide more competition for oil/gas transportation and reduce limitations imposed by privately owned pipelines.

Viosca Knoll Gathering System



Suggestion

We suggest that:

- MMS seek decision from the Comptroller General to determine whether legislation is required for extension of the contract terms
- MMS seek legislative authorization, if required, for extending RIK contracts for 5 years.

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