U.S. Department of the Interior

Office of Inspector General, *Royalty Initiatives Group*

Evaluation

Photo courtesy of Transocean

OIG Photo

Oil and Gas Production on Federal Leases: No Simple Answer

C-EV-MOA-0009-2008

February 2009

United States Department of the Interior

OFFICE OF INSPECTOR GENERAL
Washington, DC 20240

FEB 27 2009

Memorandum

To: Secretary Salazar

From: Mary L. Kendall
Acting Inspector General

Subject: Evaluation Report on Oil and Gas Production on Federal Leases: No Simple Answer (Report No. C-EV-MOA-0009-2008)

This memorandum transmits our report detailing the results of our evaluation of production on federal oil and gas leases. This evaluation was conducted at the request of U.S. House of Representatives Chairman Norman Dicks.

We found numerous data integrity issues and confirmed that the Department of the Interior cannot compel companies to develop their federal leases.

The report contains five recommendations which, if implemented, will improve oil and gas lease data reporting and reliability. We ask you to direct the Bureau of Land Management and the Minerals Management Service to inform us of their course of action within 30 days.

Should you have any questions about this report, please do not hesitate to contact me at 202-208-5745.

Attachment

cc: Assistant Secretary, Land and Minerals Management
Director, Minerals Management Service
Director, Bureau of Land Management

RESULTS IN BRIEF

Inquiries Answered

Analyze the degree to which DOI meets the statutory and regulatory requirements that govern the process by which DOI monitors and reviews the production progress on federal leases.

Except in limited situations, there is no requirement for DOI to monitor and review production progress during the primary lease term. Therefore, with limited exceptions, DOI does not monitor production progress or compel companies to develop federal leases.

For non-producing onshore and offshore leases, determine why these leases are not in production.

Leases are not producing for a variety of reasons: from business, geologic, and regulatory factors to litigation and appeals, as well as resource availability.

Determine the status of activity on non-producing leases.

During the time of our field work, MMS and BLM reported 5,605 non-producing offshore and 33,175 non-producing onshore leases. Since the MMS and BLM systems do not report detailed activity for non-producing leases, we could not determine the exact status of non-producing leases.

Evaluate lease extensions or lease condition waivers and ascertain if these actions are consistent with regulations and with the best interest of U.S. citizens.

The leases we reviewed for both MMS and BLM that were on suspension or extension were issued consistent with current regulations and as such appeared to be in the best interest of the citizens.

Oil and gas companies that own federal drilling leases have little obligation to actually produce resources. During our evaluation of non-producing federal oil and gas leases, we found that the Department of the Interior (DOI or Department) has no formal policy to compel companies to bring these leases into production. We also found that due to incompatible data tracking systems used by the Bureau of Land Management (BLM) and the Minerals Management Service (MMS), both of which are responsible for overseeing these leases, DOI is at risk of losing millions of dollars in royalties. In one case, a breakdown of communications between BLM and MMS could have resulted in a loss of nearly $6 million in royalties over a 5-year period, had the company holding the leases not sent its first production report to both bureaus and not just BLM. The existing process is heavily reliant upon companies doing the right thing.

We began this evaluation in July 2008 at the request of U.S. House of Representatives Chairman Norman Dicks. Chairman Dicks questioned whether oil and gas companies were adequately developing their federal leases and whether DOI was encouraging companies to bring leases into production. Last summer, when crude oil prices hit an all-time high and MMS was reporting that 60 percent of federal oil and gas leases were considered non-producing, a political debate over domestic oil and gas resources prompted Congress to consider legislation requiring oil and gas companies to bring federal leases into production before they could bid on new leases.

During our evaluation, we learned that the lease development process has many variables that are not self-evident. For example, due to inherent geologic uncertainties, there is no guarantee that any given lease contains oil and gas in commercial quantities. Also, because each lease property is unique, data from currently producing leases cannot be used to predict the volume of oil or gas that might be extracted from other non-producing leases.

Overall, DOI could do much more to track the status of non-producing leases, but it may not be able to do much to promote production. Absent new policy or legislative direction, both industry and bureau officials cautioned that mandating production on all federal leases or increasing lease fees would not necessarily enhance production and could, in fact, reduce industry interest in federal leases.

BACKGROUND

The Bureau of Land Management (BLM) manages 258 million surface acres of public lands located primarily in the Western United States, including Alaska. BLM also manages 700 million acres of below-ground minerals located throughout the country. MMS manages oil, natural gas, other mineral resources, and ocean energy on the outer continental shelf.

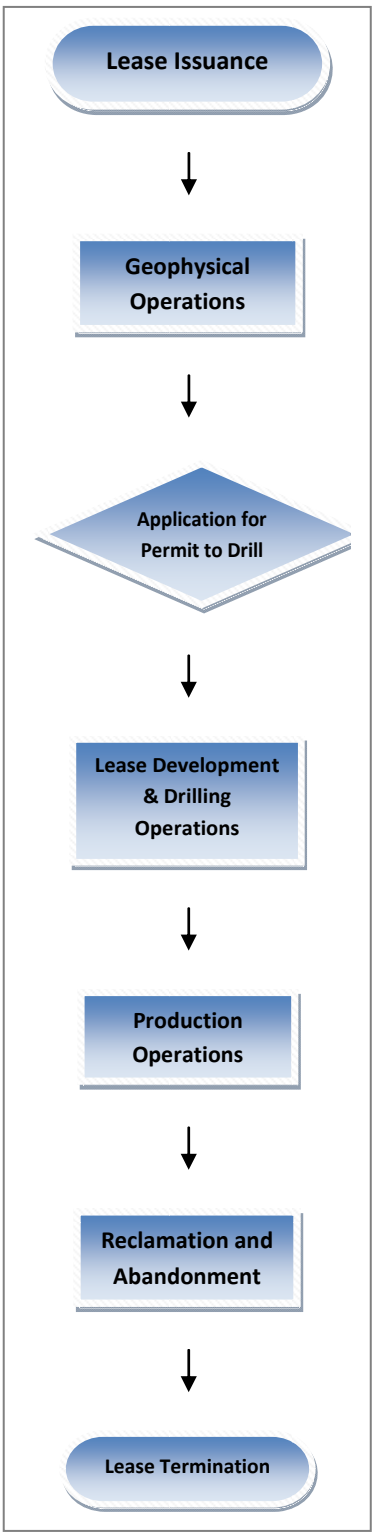
MMS also collects, accounts for, and disburses revenues from offshore and onshore mineral leases located on federal and Indian lands. The initial period, or primary term, of an offshore lease depends on the water depth – between 5 years, for shallow water, and 10 years, for deep water.

An offshore oil and gas lease continues beyond the primary term as long as the lessee conducts operations that include drilling, well-reworking, or producing oil and gas in paying quantities – that is, the volume of production is sufficient to yield a positive stream of income after subtracting normal operating expenses and royalty payments.

Since passage of the Energy Policy Act of 1992, all onshore leases are issued for a 10-year period. Both onshore and offshore leases remain in force for as long as oil or gas is produced in paying quantities.

BLM and MMS hold multiple sales of onshore and offshore oil and gas leases throughout the year. After an oil or gas company successfully bids on a lease, many processes – and obstacles – lead the way to production, or, in many cases, non-production. The adjacent flowchart illustrates the general leasing, development, and production phases for onshore and offshore leases.

As of the end of our field work, the MMS website for lease information reported a total of 61,668 federal oil and gas leases. Of this lease universe, 59 percent were reported as non-producing. Based on our analysis, 50 percent of the non-producing leases were issued within the last 5 years, and 81 percent were issued within the last 10 years.



RESULTS OF EVALUATION

Introduction

With few exceptions, the Department does not track oil and gas leases until a company applies for an Application for Permit to Drill (APD). This means it may be years before the Department records any data about a lease. There being no mandate to track a lease, MMS and BLM do not begin tracking until the lease holder applies for an APD and exploratory activity begins or the primary term of a lease ends.

Our evaluation revealed three primary factors that account for – or, fail to account for – the non-producing status of so many federal oil and gas leases: data integrity issues in the MMS and BLM systems; a litany of obstacles cited by oil and gas companies; and limited statutory and regulatory requirements on either DOI or industry to promote production.

We believe that improved and more comprehensive data would paint a much more accurate picture of the production status of DOI leases. Similarly, a better understanding of the processes and problems leading to production would lead to a more accurate perception by the public of the production status of DOI leases. Further, more explicit statutory and/or regulatory mandates would contribute to clearer expectations on the parts of both DOI and the oil and gas industry.

Data Integrity Issues

In its publicly accessible data, MMS reports that less than half – or 41 percent – of all federal oil and gas leases in the United States are producing. Without more information, these data suggest that existing leases are underutilized, but do nothing to explain why. We looked behind the reported data with hopes of making this determination. Unfortunately, we found that both MMS and BLM employ inconsistent procedures and definitions and that BLM's records are often incomplete and inaccurate, all of which call into question both the integrity and the usefulness of their data.

Unreliable Data

From the beginning of our planning efforts on this evaluation, we were confronted with lease data availability and reliability issues that hindered our progress, particularly for Indian and on-shore leases. For example, we initially planned to include Indian leases as a possible best practice because the MMS website was reporting that 3,831 out of 4,119 (93 percent) Indian leases were producing. However, we later learned that MMS did not report all non-producing Indian leases, and the 288 non-producing Indian leases reported by MMS represented leases that had produced at one time but were currently non-producing. When the Indian lease data we obtained from the Bureau of Indian Affairs showed that there were 8,048 non-producing leases, we chose not to include Indian leases in this evaluation.

We found other data reliability issues as well. For example, BLM reported 6,198 non-producing leases (19 percent) with no expiration dates (only producing leases should have no expiration dates). In addition, there were 528 producing leases that had expiration dates. Other data errors we found include leases that had terms of 8,000 years (expiration date was January 1, 9999), leases with no effective dates, and leases with negative lease terms (leases expired before the effective date).

Inconsistent Definitions

Unitization is a process where two or more leases geologically situated over a reservoir are joined together through an agreement to act as one for the efficient development and production of the reservoir. A producing unit is a collection of leases geologically situated over a reservoir of oil or gas. Such a unit may consist of two or three leases, or as many as several dozen. If the oil or gas reservoir is tapped at an optimal location in one lease block, the surrounding leases in the unit will remain technically non-producing, although the oil or gas beneath them is, in fact, being extracted.

We found inconsistencies in how BLM and MMS define and report on the status of leases. For example, BLM considers every lease contained in a producing unit (a collection of leases) as a producing lease, even though a well has not been drilled on every lease and every lease within the unit is not paying royalties. Leases not required to pay royalties in a producing unit are categorized as "held by location in a producing unit." MMS reports leases that are not paying royalties as non-producing for both offshore and onshore leases, regardless of whether or not they are part of a producing unit. Consequently, leases that are identified as producing by BLM may be reported as non-producing by MMS. We identified over 1,400 onshore leases that were reported as producing by BLM because they are "held by location in a producing unit." When we selected a random sample to determine how these leases were identified by MMS, 70 percent of the sample was reported as non-producing.

Likewise, onshore leases determined to be capable of producing in paying quantities are defined by BLM as producing, whereas, MMS classifies these leases as non-producing.

Incompatible Systems

These data integrity issues are exacerbated by multiple, incompatible systems utilized by BLM and MMS. For example, we requested from an oil company the status of five of its leases that BLM had reported as non-producing in its LR2000 system. The company reported that four of the five leases were, in fact, producing. We confirmed with BLM that the company was correct and BLM's system was misreporting these four leases as non-producing – an error that extended over the course of 5 years. Although we found that MMS *was* actually collecting the royalties for the leases (the company had informed MMS directly when the leases began producing and paid over $6 million in royalties since December 2003), this communications lapse could have lost millions of dollars in royalties. MMS was left relying solely on the company to provide correct information and pay royalties. Further, MMS incorrectly reported to the OIG the status of two of these leases. MMS reported that one was non-producing when it had been producing

for over a year, and it failed to mention the second one altogether. This second lease was also not in the data reported on MMS' website, leading to an understatement of producing leases. Such errors in multiple systems that cannot be automatically reconciled cast further aspersion on the reliability, and the fundamental utility, of the Department's lease data.

Because BLM's and MMS' systems do not "speak" to one another, data integrity is also compromised by delays in data input and update. BLM and MMS must rely on reports generated from one system to update another system. In the instance above, after the company first reported production to BLM, BLM was supposed to inform MMS and notify MMS to expect royalty payments. BLM was also supposed to update its land records system to show the leases were producing. However, none of the reporting, coordinating, or updating activities took place. Reliance on a "paper process" and BLM's failure to update its system or report to MMS increased the risk of lost royalties.

Considerations and Obstacles Leading to Production

As we were conducting our field work, the Government Accountability Office (GAO) issued a report in October 2008 in which it identified three factors influencing companies' decisions to develop oil and gas leases: business, geologic, and regulatory. During our review, we obtained additional information from 11 oil and gas companies that held oil and gas leases, three oil and gas industry organizations, Interior bureaus, subject-matter experts, and our review of leases on each of these three factors. Additionally, our evaluation determined that litigation and appeals are a growing consideration for industry during project planning. We also considered the effect that suspensions and extensions might have on the production status of leases. Finally, industry cited resource availability as having an effect on the production status of leases, including technology, equipment, infrastructure, and workforce. We present most of this information from the view of industry; we did not independently verify this information.

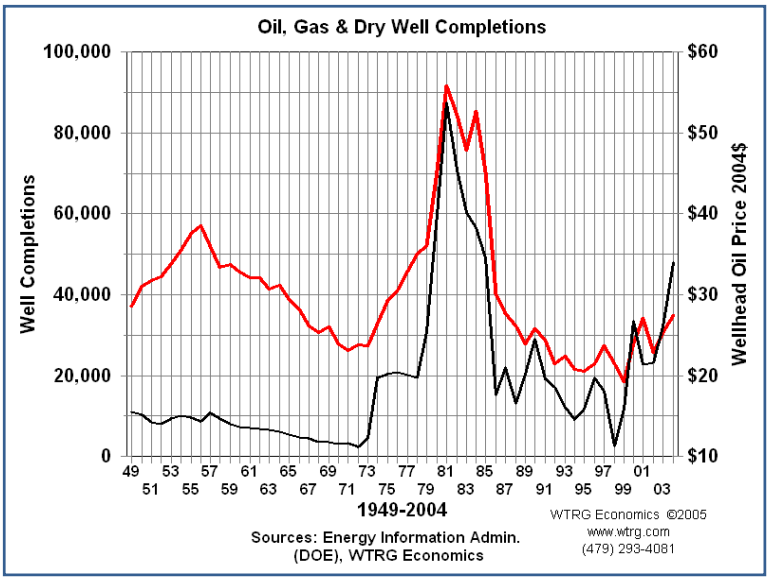
Business Decisions

The exploration and production of oil and gas requires significant capital investment – with some projects costing billions of dollars. The scale on which industry operates requires meticulous planning with consideration of many variables. In addition to the inexact science of identifying oil and gas reservoirs, industry must consider variations in commodity prices, escalating material and labor costs, drilling and transportation infrastructure, lease and capital acquisition, and regulatory concerns.

Project planning requires a long-term outlook. Leases are acquired to provide an inventory to conduct assessment and planning. Industry prefers to obtain leases in blocks that span anticipated oil and gas reservoirs. Industry practice is to allocate the first few years of the lease term to acquire adjoining leases through partnerships or purchase. Partnerships are common to mitigate the risk associated with lease development but require negotiations that typically delay development activity.

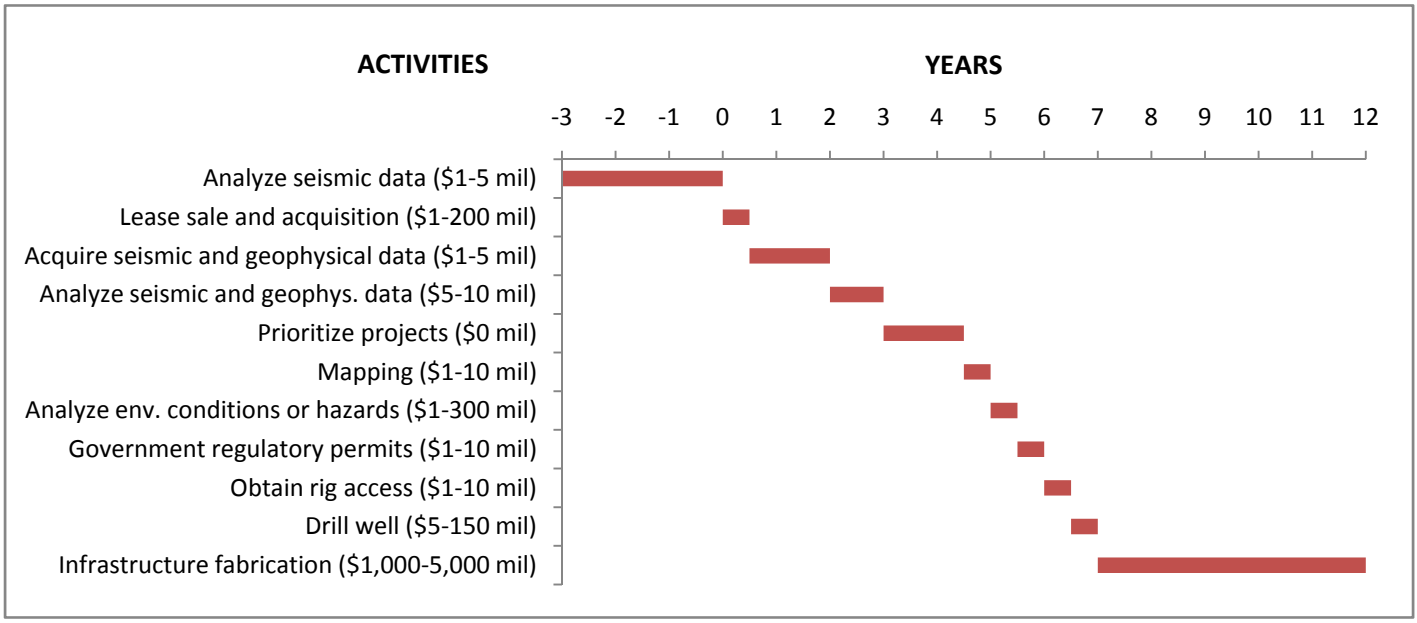
Industry considers a variety of costs associated with the development and production of oil and gas, including raw materials, labor, transportation, regulatory requirements and restrictions,

environmental studies, and a constantly fluctuating commodity market. The companies we interviewed agreed that despite the best expectations, millions of dollars are spent in exploration and drilling of wells that result in no actual production. Fluctuating commodity prices directly influence the economic analyses utilized by oil companies in their project planning.



The adjacent figure indicates how the number of well completions correlates directly with the price of oil. As the commodity price varies (bottom black line), the number of well completions (top red line) follows. Similarly, capital investments in new projects are closely correlated with commodity pricing as this represents the potential return on investment. The recent downward spiral in oil and gas prices over the second half of 2008 has directly resulted in decreased domestic exploration and production. This variation in oil commodity pricing makes the forecasting of expected return on investment difficult for ongoing and proposed projects. Projects that were considered economically feasible at higher commodity prices may no longer be viable as prices drop. In addition to a prospective decline in potential returns, the decrease in revenue has led to a reduction in cash flow for funding future projects. Consequently, the decline in new or existing projects directly affects the number of federal leases that are developed.

The chart below, taken from information presented by the Independent Petroleum Association of Mountain States and the American Petroleum Institute, demonstrates a typical lease time line and cost estimate for large onshore and deep water offshore projects.



Geological

Both onshore and offshore development utilizes costly and time-consuming techniques for determining potential hydrocarbon resources. Companies conduct seismic and geologic studies that require several years to accumulate and analyze the data. These activities are not reported to MMS and BLM; thus, the bureaus cannot identify industry's efforts to explore their leases.

Some leases may be considered non-producing because of geological factors. Geological considerations are a primary basis for industry bids on leases. The seismic data for oil and gas (hydrocarbons) inform industry as to the size of a potential reservoir and, therefore, assist in the determination as to how many lease blocks to acquire. For example, offshore in the Gulf of Mexico, the hydrocarbons are found in buried hills beneath the ocean floor. These buried hills may span 1 or 2 lease blocks, or as many as 15 to 20 lease blocks. Industry bids on blocks in lease sales that extend over the estimated size of the hydrocarbon reservoir. Once exploration starts and the reservoir is better defined, leases on the outer edges of the reservoir may not be developed and therefore remain non-producing.

Regulatory

While federal leases usually have a lower royalty rate than state and/or private leases, developing onshore federal oil and gas leases is much more difficult, time-consuming, and expensive compared to state and private leases, due in considerable part to regulatory restrictions and requirements.

Regulatory restrictions and requirements are incorporated into leases by way of stipulations. Such stipulations are designed to protect many of the natural, environmental, historical, and cultural resources contained on federal lands. These stipulations can severely limit the time in which companies are physically allowed to access the land to conduct operations. For example, leases on lands that are habitat to endangered or threatened species are subject to such rigorous stipulations that a company may only be allowed on the land 3 months out of the year. Such stipulations actually have an effect on the term of an onshore lease, since BLM stipulations do not extend the lease term. Thus, a 3-month window over the life of a 10-year lease provides a total of only 2 ½ years for actual development activity.

When multiple operators in a limited area are trying to drill their leases in a short time frame, rig availability and cost become significant hurdles to production. Rig operators would typically choose to locate their rigs in areas without stipulations so they can operate year round without being subject to the high cost and down time involved in moving rigs.

In contrast, MMS adds the time made unavailable due to stipulations to the lease term of offshore leases, which may extend a 5-year lease up to 20 years. The offshore drilling stipulations are due primarily to military testing in the area. As a result, a company may only be allowed to drill during specified drilling windows. Such drilling windows are similar to the onshore leases, as they may only allow the company 3 months out of the year to drill, but only the allowable drilling time is counted against the primary lease term.

Another stipulation impeding development is securing right-of-way access to the federal leases. In situations where a company must cross private lands to reach the federal lease, it must negotiate and obtain a right-of-way from the owner of the private land, adding to the time it takes to begin developing the lease.

Due to various regulatory restrictions and requirements imposed on federal leases, both BLM and industry informed us that state and private leases are easier to develop than federal leases.

Technology, Equipment, Infrastructure, and Skilled Workforce

Increasing challenges for discovering and accessing new oil and gas reservoirs, particularly in deep water, has resulted in a demand for technological advancements. Directional drilling and ultra deep drilling equipment can withstand the heat and pressure generated by depths over 30,000 feet in the Gulf of Mexico. The demand for such specialized technology and equipment has delayed exploration and production; as a result, there is a shortage of drilling rigs both nationally and internationally. New drilling rig construction and refurbishment of old drilling rigs have not kept up with the growing demand for oil and gas exploration and production, causing delays in projects. In fact, our research showed that rising prices for crude oil over recent years stimulated a sharp increase in exploration activity that far exceeds the number of available drilling rigs internationally. Although drilling rigs have been in great demand the past few years, industry experts report that since energy prices began declining after the summer of 2008, the demand has decreased.

If oil and gas is discovered and a rig is available, industry cites the availability of transportation of the product as another challenge. Industry pointed to onshore and offshore leases that are not producing even though oil or gas has been discovered because there are no available pipelines and the alternative cost of transporting the product is not cost effective. In addition, industry indicated that development of oil and gas projects is also being delayed because of the shortage of oil and gas field workers.

Companies indicate having some success in attracting unskilled workers, but they pointed to a widening gap within the ranks of the skilled workers, i.e. petroleum engineers, geophysicists, and geologists, who make the crucial and costly decisions about where to explore and drill. This highly specialized workforce is also aging. The average age of members of the American Association of Petroleum Geologists, for example, is 49, compared to 41 in 1981.

Litigation and Public Opposition

In addition to the business, regulatory, geologic, and resource factors, we found that litigation and public opposition to oil and gas production have significant impact on the ability of lease holders to conduct development activities. Most of the opposition has been to onshore leases, occurring during environmental reviews, including resource management plan development, environmental assessments, and environmental impact studies. Industry advocacy groups emphasized this point, citing a dramatic increase in opposition that begins even prior to lease issuance and continues throughout the development process.

BLM officials in Montana noted that approximately 500 federal leases in the Flathead and Gallatin National Forests, where BLM manages the minerals, have been held in abeyance since 1985 pending the results of National Environmental Policy Act studies opposed by special interest groups. In the Powder River Basin in southeast Montana, coal bed methane leases have been delayed for years pending litigation. Currently, a court-ordered restriction on the number of APD's that can be approved by BLM for this area means many leases are in abeyance pending the results of the environmental impact study. BLM officials indicated that their reviews must be "bullet-proof" in order to overcome continuing opposition.

On occasion, federal lands are leased for the development of other minerals such as potash and coal, which conflict with oil and gas development. For example, in 1986 the Secretary of the Interior suspended oil and gas production in areas that were suitable for potash mining to promote the orderly development among the minerals. Because the oil and gas are below the potash, the potash must be mined first. This spawned litigation to determine the feasibility of developing both resources through one operator. In southeast New Mexico, approximately 50 oil and gas leases are still under indefinite abeyance pending the development of potash.

Offshore leases in the Gulf of Mexico have been impacted by litigation far less than onshore. Historically, only 21 active leases out of 7,477 have been halted due to litigation. Offshore litigation and protests have been primarily related to the coastal areas of Florida. This has been attributed to advocates wishing to protect the ecosystem of the Florida coastline.

However, offshore areas outside the Gulf of Mexico have had considerable opposition to offshore drilling. This includes the waters off Alaska and the Atlantic and Pacific coastal states. For example, the last lease sale for offshore California leases was held in 1984.

Suspensions and Extensions

We also reviewed the effect of suspensions and extensions of lease terms on the production status of leases. While suspensions and extensions are similar in practical result, they are granted for different reasons and under different authorities. For the purposes of discussion here, however, they will not be distinguished, and hereafter we use the term suspension.

Suspensions are intended to be granted for reasons beyond the control of the operator. Suspensions are usually granted to allow reasonable time to commence drilling operations when good faith and diligent efforts have been made but work is delayed by reasons beyond the company's control, such as bad weather, delays in permitting, rig delays, or pending litigation. Suspensions granted by MMS and BLM extend the primary term of the lease. For example, the time allowed for suspension is added back to or extends the term of the lease so the company is not penalized for circumstances beyond its control. Based on our lease review and discussions with bureau officials, onshore leasing usually incurs more development barriers and would tend to have more suspensions granted.

Using the data available, we determined that less than one half of 1 percent of current, non-producing offshore leases are presently under suspension but that almost 9 percent of non-

producing onshore leases are currently under suspension. Thus, the cumulative effect of suspensions does increase the overall numbers of non-producing leases.

Limited Statutory & Regulatory Requirements to Promote Production

A number of laws and regulations direct and guide the Department on virtually all aspects of oil and gas leasing, from awarding of a lease to the regulatory oversight of lessees' activities, exploration requirements, safety matters, and plug and abandonment obligations. The laws and regulations also contain more general "due diligence" provisions concerning production, which provide the Department with the authority to require lessees to take affirmative action toward diligently developing their leases.

The Department has done little to provide specific guidance to lessees on the "due diligence" production requirements. While leases typically include a performance clause that could be used by the Department to promote or compel production, the Department has not definitively established the authority in lease terms, regulations, or past enforcement actions. For the majority of leases – over 99 percent – in their primary 5- or 10-year terms, the Department does not monitor to ensure that due diligence is exercised. Accordingly, none of these leases are terminated for failure to produce; rather, the Department allows these leases to expire naturally. The exception to this practice pertains to 8-year offshore leases, which contain a clause requiring a well to be commenced by the 5th year of the lease or the lease would be terminated. These leases, however, represent only a tiny percentage – less than 1 percent – of the total lease universe or 5 percent of the offshore lease universe. While MMS reported that it does monitor progress on these leases, we found 45 8-year offshore leases that went beyond the 5th year even though they should have been terminated for non-diligence. MMS was still researching these leases at the end of our field work.

Beyond the primary term, BLM and MMS told us that they monitor those non-producing leases that are part of a unit or that have been otherwise extended by a suspension. MMS' database indicates that, historically, it has terminated 49 offshore leases that had been suspended. BLM's database does not identify the number for onshore terminations. For onshore units, BLM may impose a diligence requirement, such as a well to be drilled every 6 months. While BLM claims that it monitors this drilling activity, the BLM database does not identify leases that have been terminated for failure to drill.

Conclusion

With limited exceptions, the federal government does not monitor production progress for oil and gas and cannot compel companies to develop their federal leases. Likewise, once a company obtains a lease, it generally has no obligation to drill a well. While the Department stated in its response to the October 2008 GAO report that it is pursuing expedited development of oil and gas leases, no formal policy to expedite production activity actually exists. That is, while current statutes, regulations, and policies do promote exploration, production activities are not required to commence within the primary lease term. The bureaus do not inquire about the production strategies of companies and have not attempted to enforce the performance clause included in lease agreements. Both industry and bureau officials cautioned, however, that mandating production activities may not necessarily have positive outcomes and could, in fact, be counter-productive by reducing industry interest in federal leases.

When we asked subject-matter experts about increasing production, we were advised to consider smarter production rather than faster production. According to the petroleum engineering experts at the Colorado School of Mines, faster production rates do not necessarily equate to more production. That is, simply drilling multiple wells on every lease may not result in more produced volumes of oil and gas. A reservoir has a certain amount of pressure that is naturally contained within the reservoir; producing the hydrocarbons too quickly may prematurely dissipate that pressure. Accordingly, a company's drilling plan needs to carefully proceed at a rate that does not release these natural pressures too rapidly because this will result in some oil and gas never being extracted. Although drilling many wells may provide high volume initially, this may only be for the short term. A company looking to produce the greatest volumes will take a longer term outlook and drill fewer wells. By gradually producing the hydrocarbons, the natural reservoir pressures will be maintained for maximum benefit.

Instituting a comprehensive monitoring program for non-producing leases would provide the Department and interested parties with more information about the status of individual leases. Much effort would be involved, however, and increased monitoring would not necessarily result in expedited drilling activity or increase the production of oil and gas.

We are providing recommendations to help the Department streamline and improve oil and gas lease data reporting and reliability. Our recommendations should help the Department undertake an initiative to monitor the development progress of non-producing leases. Our recommendations also complement the ones made in the December 2007 report by Interior's Subcommittee on Royalty Management, titled, "Report to the Royalty Policy Committee: Mineral Revenue Collection from Federal and Indian Lands and the Outer Continental Shelf."

Recommendations

We recommend that:

1. BLM and MMS coordinate the reporting of producing and non-producing lease data, to include adopting standard and consistent terminology.

2. BLM improve the reliability of lease status information in its lease data system (LR2000) by correcting existing erroneous data and establishing new controls to ensure accurate and consistent data input in the future.

3. The Department work with BLM and MMS to identify the best existing system (either MMS or BLM system) for lease management and develop the capability for both bureaus to access and use this system, thus eliminating multiple systems, the need for manual reporting between the bureaus, and the attendant data integrity problems that arise.

4. The Department, in consultation with Congress, determine if BLM, MMS, and BIA should monitor the status of development and production on non-producing leases.

5. The Department, in consultation with Congress, establish a clear policy regarding the production of oil and gas from federal leases. This policy should include guidelines and policies that direct the bureaus on production monitoring, such as tracking the lease development activities and where, and at what pace, development should occur.

Objective, Scope, and Methodology

The objective of this review was to perform an evaluation of non-producing oil and gas leases located on federal lands. The Chairman of the U.S. House of Representatives' Subcommittee on Interior, Environment, and Related Agencies requested the evaluation. We examined the statutory and regulatory requirements that govern production progress, the reasons why drilling and production activities have not occurred on leases currently in non-production status, and the reasons for granting lease extensions.

The scope of this review covered both onshore leases managed by BLM and offshore leases managed by MMS. American Indian oil and gas leases were not included in this review.
To accomplish our objectives, we did the following:

- Reviewed BLM and MMS policies and procedures for managing onshore and offshore oil and gas leases.
- Reviewed the laws and regulations related to oil and gas exploration and production.
- Gained an understanding of the automated systems used by BLM and MMS to manage and collect rent and royalties from federal onshore and offshore oil and gas leases.
- Interviewed BIA personnel to gain an understanding of how the bureau manages oil and gas leases.
- Interviewed MMS' Offshore Energy and Minerals Management personnel.
- Interviewed BLM personnel and reviewed lease files at the following state and field office locations:
    - Colorado State Office – Lakewood, Colorado
        - Little Snake Field Office – Craig, Colorado
        - Glenwood Springs Energy Office – Glenwood Springs, Colorado
    - Montana State Office – Billings, Montana
        - Miles City Field Office – Miles City, Montana
    - New Mexico State Office – Santa Fe, New Mexico
        - Carlsbad Field Office – Carlsbad, New Mexico
        - Roswell Field Office – Roswell, New Mexico
    - Wyoming State Office – Cheyenne, Wyoming
        - Rawlins Field Office – Rawlins, Wyoming
    - Utah State Office – Salt Lake City, Utah (Conducted Phone Interview)
- Interviewed subject matter experts at the following organizations: American Petroleum Institute, Independent Petroleum Association of Mountain States, and Independent Petroleum Association of America.
- Interviewed professors at the Colorado School of Mines representing the Economics and Business Department and the Petroleum Engineering Department.

- Interviewed personnel at 11 oil and gas companies: Anadarko Petroleum Corporation, Apache Corporation, BHP Billiton, BP America Inc., Chevron Corporation, Davis Petroleum Corporation, EnCana Oil and Gas, ExxonMobil Production Company, Shell Exploration & Production Company, W&T Offshore, and Yates Petroleum Corporation.
- Selected a sample of 46 non-producing and 14 producing onshore leases to determine the status of each lease.
- Selected a sample of 36 non-producing and 14 producing offshore leases to determine the status of each lease.

We performed our evaluation from July 2008 through February 2009 and conducted our work in accordance with the Quality Standards for Inspections issued by the President's Council on Integrity and Efficiency.

Glossary

Development – Those activities that take place following discovery of minerals in paying quantities, including but not limited to geophysical activity, drilling, platform construction, and operation of all directly related onshore support facilities, and which are for the purpose of producing the minerals discovered.

Environmental Assessment (EA) – A concise public document addressing the environmental impacts of an action for which a federal agency is responsible that serves to provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.

Environmental Impact Statement (EIS) – The statement required of federal agencies by the National Environmental Policy Act of 1969 in every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of the human environment.

Lessee – The party authorized by a lease, or an approved assignment thereof, to explore for and develop and produce the leased deposits.

National Environmental Policy Act of 1969 (NEPA) – NEPA establishes a public, interdisciplinary framework for federal decision-making and ensures that agencies take environmental factors into account when considering federal actions. NEPA does not mandate protection of the environment. Instead, it requires agencies to follow a particular process in making decisions and to disclose the information/data that was used to support those decisions.

Outer Continental Shelf (OCS) – The federal government administers the submerged lands, subsoil, and seabed lying between the states' seaward jurisdiction and the seaward extent of federal jurisdiction.

Potash – Any of several compounds containing potassium, especially soluble compounds such as potassium oxide, potassium chloride, and various potassium sulfates, used chiefly in fertilizers.

Primary Term – For MMS leases, the period of time, typically 5, 8, or 10 years, during which a lease may be kept alive, even though there is no exploration or development, by the payment of an annual rental fee.

Production – Those activities that take place after the successful completion of any means for the removal of oil or natural gas, including such removal, field operations, transfer of oil or natural gas to shore, operation monitoring, maintenance, and workover drilling.

*Information for glossary obtained from the following sources: *http://edocket.access.gpo.gov*, *Williams and Meyers Manual of Oil and Gas Terms* 2006, *www.blm.gov*, and *www.mms.gov*.

Reservoir – A porous, permeable sedimentary rock containing commercial quantities of oil or gas. The reservoir is formed when the escape of the oil or gas is prevented by surrounding layers of impervious rock.

Resource Management Plan (RMP) – A land use plan as prescribed by the Federal Land Policy and Management Act of 1976 (FLPMA), which establishes, for a given area of land, land-use allocations, coordination guidelines for multiple use, objectives, and actions to be achieved.

Rig – The structures and equipment used in drilling an oil and gas well.

Right-of-way (ROW) – The federal lands BLM or MMS authorizes a holder to use or occupy under a grant.

Royalty – The landowner's share of production paid either in money or in-kind.

Seismic (geophysical survey) – The measurement and recording of certain physical quantities in the outer rock shell of the earth, the object being to learn the nature and contour of underground geological structures.

Stipulation – A specific measure imposed upon a lessee that applies to a lease. Stipulations are attached as a provision of a lease. They may apply to some or all blocks in a sale. For example, a stipulation might limit drilling to a certain time of the year for wildlife preservation.

Suspension of Operations or Production (SOO or SOP) – An authorized temporary cessation or prohibition of activities on a leasehold. As of the effective date of a suspension, time on a lease stops for the life of the suspension, thus having the effect of extending the term of a lease for a period of time equal to the length of time of the suspension.

Unitization – A term frequently used to denominate the joint operation of all or some portion of a producing reservoir. This is important in the prevention of drilling unnecessary and uneconomic wells, which will result in physical and economic waste.

Well Reworking – Work performed on a well after its completion in an effort to (1) secure production where there has been none, (2) restore production that has ceased, or (3) increase production.

*Information for glossary obtained from the following sources: *http://edocket.access.gpo.gov, Williams and Meyers Manual of Oil and Gas Terms* 2006, *www.blm.gov*, and *www.mms.gov*.

Report Fraud, Waste, Abuse, and Mismanagement

Fraud, waste, and abuse in government concerns everyone: Office of Inspector General staff, Departmental employees, and the general public. We actively solicit allegations of any inefficient and wasteful practices, fraud, and abuse related to Departmental or Insular Area programs and operations. You can report allegations to us in several ways.

By Mail:

U.S. Department of the Interior
Office of Inspector General
Mail Stop 4428 MIB
1849 C Street, NW
Washington, D.C. 20240

By Phone

24-Hour Toll Free 800-424-5081
Washington Metro Area 703-487-5435

By Fax

703-487-5402

By Internet

www.doioig.gov/hotline