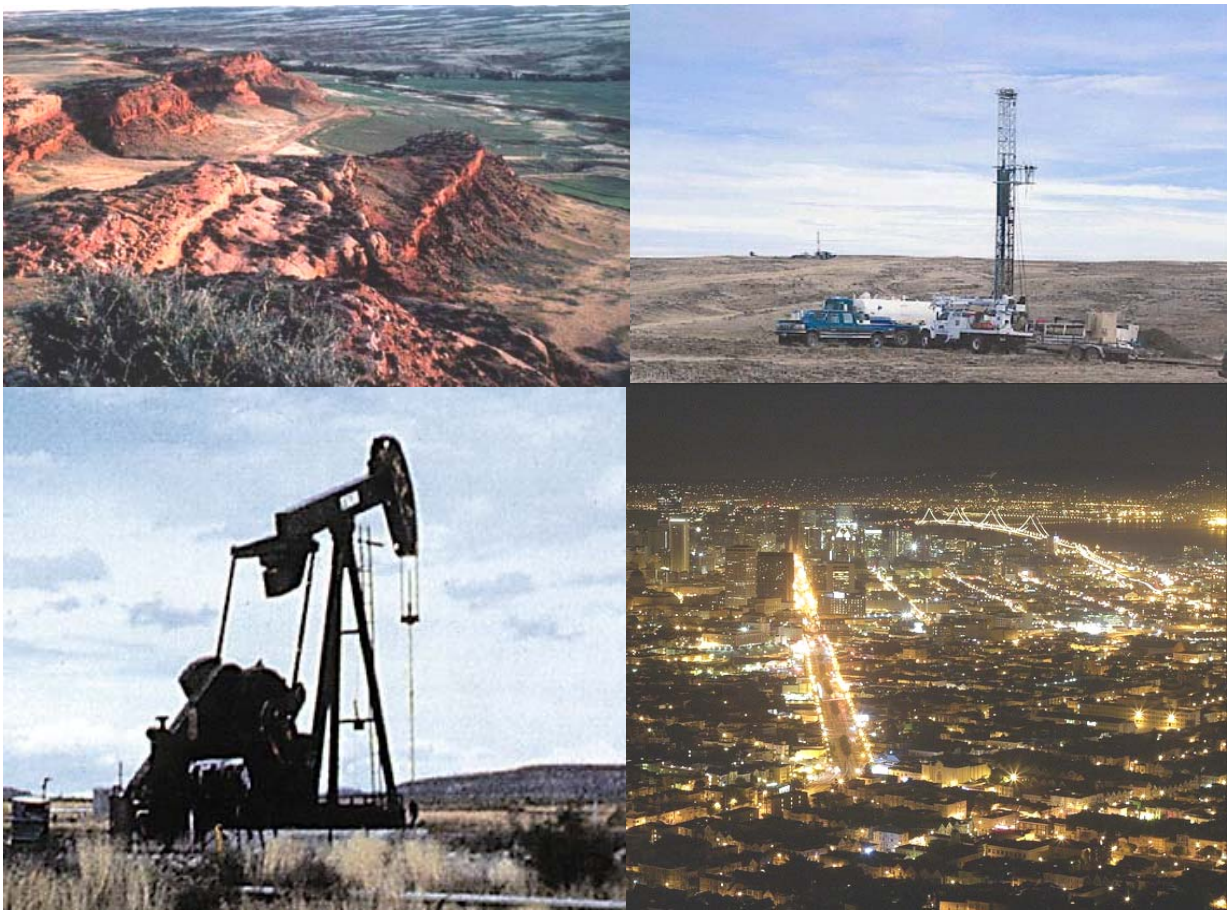
Department of the Interior
Office of Inspector General



Audit of Oil and Gas Permitting Process
Bureau of Land Management

Report No. W-IN-BLM-0009-2003
February 2004

Description of Cover Photographs – Clockwise from Top Left

- North Fork of the Powder River – *Photo Courtesy of Wyoming Game and Fish Department*
- Coalbed Methane Drilling Rig, South of Gillette, Wyoming – *Photo Courtesy of U.S. Department of Energy*
- Downtown San Francisco, California, at Night – *Photo Courtesy of Declan McCullagh's Photo Gallery Website*
- Well Pump (Pump Jack) – *Photo Courtesy of U.S. Geological Survey*

United States Department of the Interior

Office of Inspector General
Western Region
Federal Building
2800 Cottage Way, Suite E-2712
Sacramento, California 95825

February 13, 2004
7430

Memorandum

To: Assistant Secretary for Land and Minerals Management

From: Michael P. Colombo
Regional Audit Manager

Subject: Audit of Oil and Gas Permitting Process, Bureau of Land Management (Report No. W-IN-BLM-0009-2003)

Attached is our final report on the Bureau of Land Management's (BLM) method for processing applications for oil and gas drilling permits. We initiated this review because of current public and Congressional interest in general energy development issues and more specifically concerns about impediments to developing the nation's energy resources.

We found that BLM's permitting process was severely compromised by outdated land use plans and the lack of effective management oversight and accountability of the application processing function. Specifically, we found that BLM did not anticipate the rapid development of new energy resources, i.e., coalbed methane, and that processing times for drilling applications averaged four times longer than BLM's target processing time. The lack of monitoring and tracking strategies to trigger land use plan revisions, assess processing bottlenecks, and appropriately size and align staff has delayed application processing, which has reduced revenues to operators and federal and state governments.

We did not receive an official response to the draft report, despite verbal extensions to the response due date of January 16, 2004. Accordingly, all eight recommendations are considered unresolved. The legislation, as amended, creating the Office of Inspector General requires that we report to Congress semiannually on all audit reports issued, the monetary effect of audit findings (see Appendix 1), actions taken to implement our audit recommendations, and recommendations that have not been implemented.

Please provide a written response to this report by March 30, 2004. The response should supply the information requested in Appendix 5. We appreciate the cooperation shown by BLM staff during our review. If you have any questions regarding this report, please call me at (916) 978-5653.

Attachment

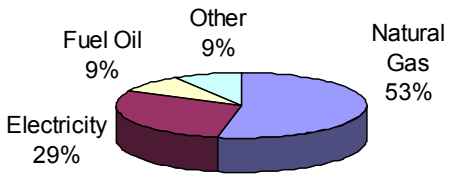
cc: Director, Bureau of Land Management (MS 5660)
Audit Liaison Officer, Assistant Secretary for Land and Minerals Management (MS 7328)
Audit Liaison Officer, Bureau of Land Management – Attn: Andrea Nygren (MS 1000 L St.)
Focus Leader for Management Accountability and Audit Follow-up (PPM) (MS 5412)

Executive Summary

Audit of Oil and Gas Permitting Process
Bureau of Land Management

The nation's energy consumption is rapidly outpacing production. As the primary fuel for most new electrical power plants and the main source for heating over half the homes in the United States, natural gas is an essential energy resource.

Home Heating Energy Sources In the United States



Source: Data from U.S. Department of Energy, Energy Information Administration, Annual Energy Review 2001

Both the President and Federal Reserve Chairman have emphasized the necessity of increasing domestic natural gas supplies. Federal lands in the West produce 5 percent of our oil and 11 percent of our natural gas and are expected to grow in importance in the future. Western natural gas reserves, which are sufficient to heat about 60 million homes for 60 years, are located in six geologic basins, with current production centered in two—the Powder River Basin in Montana and Wyoming and the San Juan Basin in New Mexico and Colorado.

The Bureau of Land Management (BLM) is the federal agency responsible for approving permits to allow operators to drill for oil and gas on federal lands and, as such, plays a pivotal stewardship role in managing natural gas reserves. BLM assesses the use of these reserves, along with other competing uses, in land use plans prepared in conjunction with the public.

The recovery of natural gas begins when an operator who has obtained a lease submits a permit application (known as an Application for Permit to Drill or APD). BLM then initiates a process to determine whether the APD satisfies administrative and technical requirements. At the same time, BLM assesses the environmental impacts associated with the proposed drilling and prepares and approves the documentation required under the National Environmental Policy Act (NEPA).[1]

We reviewed BLM's processing of oil and gas drilling permits to determine whether permits were processed and approved efficiently. We found that the following problems significantly delayed and impeded BLM's ability to effectively process and approve APDs.

- The failure to systematically update land use plans to reflect changing conditions, in particular, the rapid growth of natural gas extraction from coalbed seams (coalbed methane).

- The lack of effective management oversight and accountability.

The effect of outdated land use plans can be readily seen in the Powder River Basin, where land use plans that failed to adequately anticipate the development of coalbed methane gas had resulted in litigation and a BLM-imposed moratorium on oil and gas drilling in the Basin.

[1] BLM cannot approve drilling permits until appropriate environmental reviews and documentation are complete.

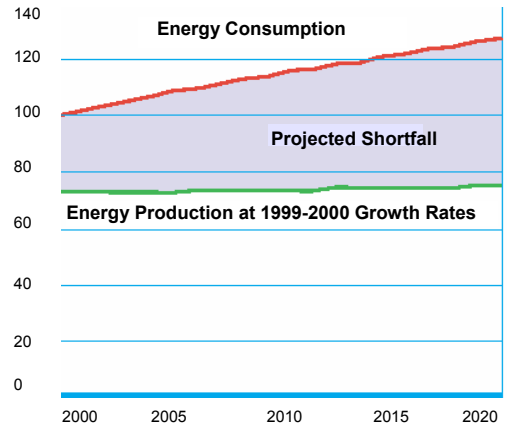
The effect was a backlog of APDs, delays in gas production, and unrecoverable royalties of up to $24 million a year because of gas being drained from federal lands by wells on state and private lands. From 1987 through October 2002, the federal government lost $52 million[2] in royalties (see Appendix 1). An environmental impact statement (EIS) for the Wyoming portion of the Basin, issued in January 2003, updated the land use plans for the area; BLM projects about 67,000 wells will ultimately be developed throughout the entire Basin.

The lack of effective management oversight and accountability has resulted in the (1) inability to efficiently determine the status of APDs; (2) lack of sufficient accountability and direction for APD processing; (3) uncertainty as to whether staffing is appropriate to meet workload demands; (4) inconsistent interpretation of APD procedures and documentation requirements for site-specific environmental reviews; (5) inability to measure performance of the APD process, and (6) wide variation in processing times, which average four times longer than BLM's target processing time of 30 to 35 days.

Other detrimental effects associated with the inefficient processing of drilling permits include delayed production for a nation with a growing demand for cleaner energy, increasing pressure on prices, and loss of royalties for state governments.

We noted that BLM has recently undertaken important initiatives to improve the permit approval process. In April 2003, for example, BLM issued guidance to its field offices to allow new strategies for expediting APDs, such as simultaneously processing environmental analyses and block surveys of cultural resources to cover larger areas, as appropriate. In fiscal year 2001, BLM also began updating its entire planning base, consisting of more than 160 land use plans, and has identified 21 high-priority land use plans (collectively referred to as Time Sensitive Plans[3]) for critical update.

We commend BLM's efforts to expedite the APD approval process, but believe that further action is needed to meet the nation's anticipated energy demand, which is expected to outpace production.



Over the next 20 years, growth in U.S. energy consumption will increasingly outpace U.S. energy production, if production only grows at the rate of the last 10 years.

Sources: Sandia National Laboratories and U.S. Department of Energy, Energy Information Administration. (Modified)

Our recommendations in this report should assist BLM in removing impediments to processing APDs in an efficient and environmentally responsible manner.

[2] None of this amount applied to Indian lands.

[3] BLM selected these land use plans because they (1) covered study areas related to the development of energy resources, (2) responded to nationally significant lawsuits, or (3) had legislatively mandated time frames.

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Abbreviations:

AFMSS	Automated Fluid Minerals Support System
APD	Application for Permit to Drill
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
EIA	Energy Information Administration
EIS	Environmental Impact Statement
GPRA	Government Performance and Results Act
NEPA	National Environmental Policy Act
RMP	Resource Management Plan
TCF	Trillion Cubic Feet
TSP	Time Sensitive Plans

Background

Demand for energy in the United States is growing. As shown in the following U.S. Department of Energy graph (Figure 1), growth in energy consumption is outpacing production.

Energy Production and Consumption, 1970-2025
(Quadrillion British Thermal Units)

Figure 1

Source: U.S. Department of Energy, Energy Information Administration, "Annual Energy Outlook 2003 with Projections to 2025"

Natural gas is a significant energy resource for the United States and is the main source of heating for over half of our homes and the primary fuel for most new electrical power plants. In his 2001 National Energy Policy, the President addressed the need for increasing the domestic supply of natural gas. Similarly, the Chairman of the Federal Reserve Board has spoken of the need to increase our imports of natural gas because domestic production is not keeping pace with increasing demand.[4]

Federal lands in the West produce about 11 percent of our natural gas, a percentage that is expected to increase in the future as the West's natural gas reserves are developed.

According to a 2002 U.S. Geological Survey assessment of six Western geologic provinces or basins,[5] these basins hold about 183 trillion cubic feet (TCF) of technically recoverable[6] natural gas reserves. These reserves, the second largest in the nation after those of the outer continental shelf, are sufficient to heat about 60 million homes[7] for 60 years. Natural gas production is currently centered in two—the San Juan and Powder River Basins.

Natural Gas Reserves Located in Six Major Basins

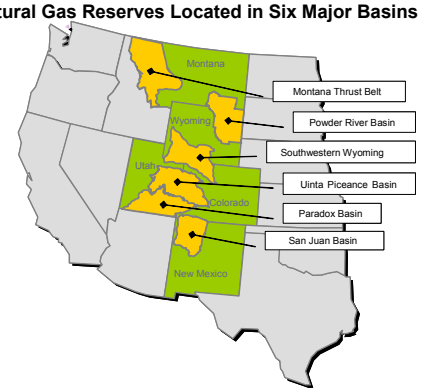


Figure 2

Source: U.S. Geological Survey Fact Sheet 149-02 (Modified)

[4] A 2000 Energy Information Administration (EIA) forecast stated that between 1999 and 2020, the natural gas consumption of the United States would increase 62 percent, resulting in the need to significantly increase our imports of natural gas. According to the EIA's 2003 Annual Energy Outlook, the United States now produces about 84 percent and imports about 16 percent of the natural gas it uses.

[5] The six basins are (1) Southwestern Wyoming in Wyoming, Colorado, and Utah - 84.6 TCF; (2) San Juan Basin in New Mexico and Colorado - 50.6 TCF; (3) Uinta Piceance Basin in Utah and Colorado - 21.4 TCF; (4) Powder River Basin in Wyoming and Montana - 16.5 TCF; (5) Montana Thrust Belt - 8.6 TCF; and (6) Paradox Basin in Utah and Colorado - 1.5 TCF.

[6] Technically recoverable refers to resources that are producible using current recovery technology without reference to economic profitability.

[7] This number represents the estimated number of natural gas customers in 2001.

Conditions in the two Basins differ significantly. Production in the San Juan Basin, an older and established field, has already peaked and started to decline. Although about 10,000 new wells are projected on federal lands in the next 20 years, this will only moderate the production depletion rate for the Basin.

The greatest increase in production is expected to occur in the Powder River Basin, where development began in the late 1990s. By the end of 2002, only about 12,000 of about 51,000 projected wells on federal, state, and private lands had been drilled in Wyoming, and only a few hundred of the estimated 5,000 to 16,000 wells had been drilled in Montana. Total Basin volumes are expected to increase significantly, with the vast majority of the increase coming from coalbed methane gas.

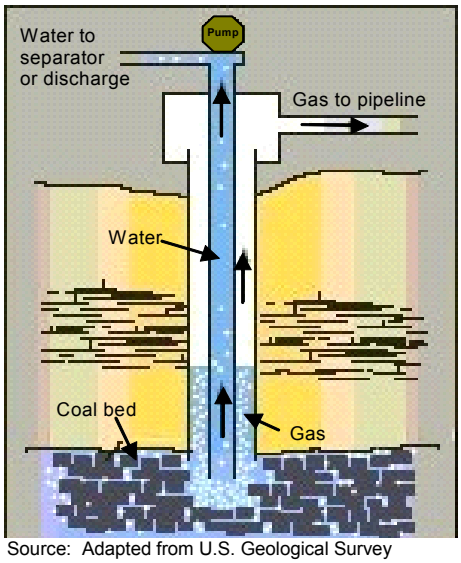
BLM[8] is the agency within the Department of the Interior responsible for leasing federal lands for the exploration and development of oil, gas, and other energy resources. Energy resources are developed within the framework of law governing BLM's mission to manage public lands in a manner that sustains the health, diversity, and productivity of the lands and ensures their use and enjoyment by present and future generations.

Every action and approved use of lands managed by BLM is based on land use plans prepared by BLM in collaboration with local, state, and Tribal governments; the public; and industry.

What is Coalbed Methane?

Coalbed methane gas is natural gas found inside and around coal seams. The gas is held in place by the pressure from the ground overhead and from water in the coal. Extracting the gas involves drilling a well into the coal seam and pumping out the groundwater to release the pressure on the gas and allow it to flow to the well where it is captured.

The quantity and quality of the groundwater varies from area to area. In some areas, the quality of the groundwater may be good enough to discharge the water onto the surface. In other areas, the groundwater is of such poor quality as to require special treatment or re-injection. Properly disposing of the groundwater is one of the major environmental concerns in producing coalbed methane gas.



Source: Adapted from U.S. Geological Survey Fact Sheet FS-110-01

Land use plans for areas of expected resource development, such as developing natural gas reserves, must also comply with NEPA requirements and include an analysis of the effect of resource development on the environment. As part of compliance with NEPA, BLM identifies alternatives

[8] Of the over 500 million surface acres of federal land managed by the Department of the Interior, BLM manages over 260 million acres as well as over 700 million acres of subsurface federal mineral estate.

and selects the one preferred alternative that best resolves the environmental consequences of land use decisions. BLM updates the plans, in an ongoing process, to respond to new circumstances. BLM has a total of 162 land use plans[9] that lay out management and use options for federal lands under BLM's jurisdiction.

As part of its oil and gas management program, BLM issues permits for post-lease activities. Before drilling on federal land, an operator must submit an APD. BLM reviews and evaluates the operator's APD to determine if it is technically and administratively complete. BLM also prepares or reviews and approves appropriate documentation for impacts on the social and natural environments associated with the proposed drilling, such as the effect of roads, pipelines, noise, or the disposal of waste and water.

The APD approval process comprises two primary reviews:

- The "downhole" review looks at the operator's drilling plan and the geology and physical aspects of the well or wells, such as depth, casing specifications, and cementing requirements. "Downhole" requirements are similar from well to well within the same area.
- The surface review looks at such factors as roads, well site layout, methods for containing and disposing of waste materials and water (see Figures 3 and 4), and surface reclamation plans. The review can also involve preparing or reviewing site-specific surveys for archeological and cultural resources, threatened and endangered species, and other environmental concerns. Conditions and concerns often vary significantly from well to well within the same area.

Figure 3
Large holding pond for water produced during coalbed methane extraction, Powder River Basin
Office of Inspector General Photo

Figure 4
Settling tanks holding water produced during coalbed methane extraction prior to re-injection, San Juan Basin
Office of Inspector General Photo

While the "downhole" review can often be completed within a week, the surface review can take months, depending on the surface conditions encountered and the extent of documentation required, and is the most time-consuming portion of the APD process.

[9] Land use plans include resource management plans (RMPs), which are decision-making documents prepared in collaboration with the public to establish land use allocations, multiple-use guidelines, and management objectives for a given planning area. EISs, which analyze proposed actions and their effects on the social and natural environments, including short- and long-term effects and direct, indirect, and cumulative effects, are normally prepared in conjunction with land use plans. RMPs and EISs must be released to the public for review and comment.

Overall, the number of days to approve APDs in fiscal years 2001 and 2002 averaged just over 130 days. During fiscal year 2002, most offices exceeded 80 days, and four offices exceeded 200 days.

In 2001 and 2002, BLM approved about 3,800 APDs annually. This number is expected to increase significantly with the April 2003 issuance of the records of decision and resource management plan amendments for oil and gas development in both the Wyoming and Montana portions of the Powder River Basin.

The processing of APDs falls under BLM's broad *Strategic Plan* goal category of "serving current and future publics." Under the Government Performance and Results Act (GPRA) of 1993,[10] agencies are required to report to Congress on the results of their programs and the quality of service provided to the public. To comply with this GPRA requirement, agencies establish goals and objectives in their individual strategic plans and report annually on how well these goals are met in their performance plans and reports.

Audit Objective and Scope

The initial focus of our audit was to identify issues related to the administration and management of coalbed methane activities from permitting through production verification. We revised our objective to evaluate the efficiency of BLM's oil and gas permit approval process because BLM was experiencing permit processing delays.

Our objective did not include assessing the adequacy of BLM's environmental reviews or the environmental impacts that result from exploring, drilling for, or producing oil and gas.

The scope and methodology of our audit, including the sites visited or contacted, are detailed in Appendices 2 and 3.

Prior Audit Coverage

Neither the Office of Inspector General nor the General Accounting Office has issued any reports during the past 5 years concerning the oil and gas permit approval process.

[10] Public Law 103-62 (5 USC, Sec. 306 and 31 USC, Sec. 1115 & 1116).

Impediments to Efficient APD Processing

BLM's permitting process was significantly hampered by outdated land use plans and the lack of effective management oversight and accountability of the application processing function. These conditions occurred because BLM lacked monitoring and tracking strategies to (1) anticipate the rapid development of new energy resources, (2) consistently process permit applications and identify processing bottlenecks, (3) effectively size, align, and employ staff to optimize application processing, and (4) consistently interpret APD procedures and documentation requirements.

As a result, processing times for drilling applications averaged four times longer than BLM's targeted processing time of 30 to 35 days (see Figure 5). In addition, these conditions delayed bringing oil and gas wells into production and payment of revenues to federal and state governments. In the Powder River Basin alone, application delays resulted in millions of dollars in unrecovered royalties related to the drainage of gas from federal lands.

The larger ripple effect of processing delays is the loss of potential revenues to lease holders and government royalty recipients and the constriction of domestic energy choices, which increases pressure on prices and the need to import supplies to meet demand.

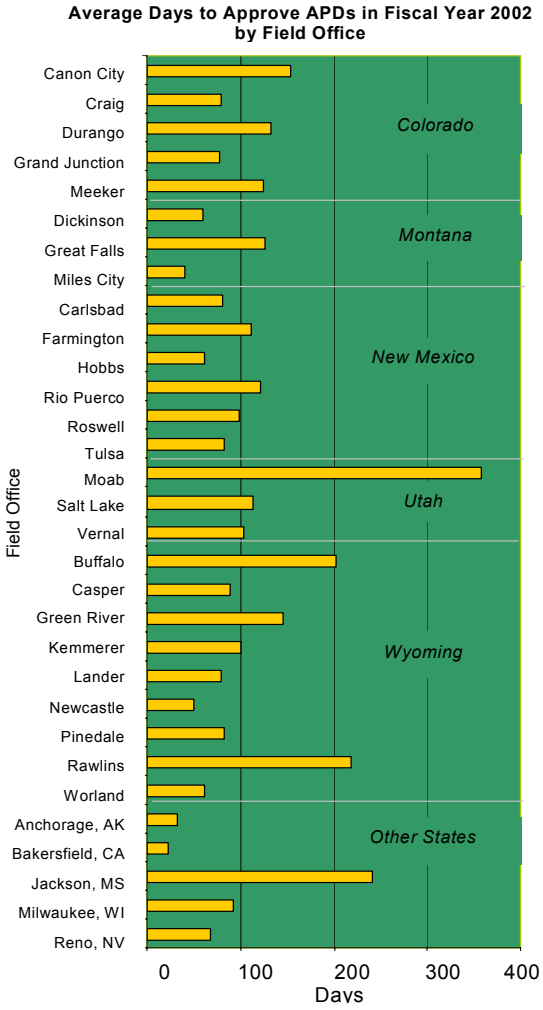


Figure 5

Source: Data provided by BLM Miles City Field Office

Outdated Land Use Plans

BLM has a longstanding problem in systematically updating its land use plans to reflect changing conditions and emerging trends, such as the increased demand for drilling of natural gas, in particular coalbed methane. As a result, oil and gas development has been

slowed or stopped at times to wait for updated plans that reflect current, or reasonably foreseeable, development.

For example, the land use plan for the Wyoming portion of the Powder River Basin, the *Final Environmental Impact Statement and Proposed Plan Amendment for the Powder River Basin Oil and Gas Project*, issued in January 2003, was developed to update prior land use plans that did not effectively address coalbed methane gas development in the Basin. Prior to issuance of this EIS, litigation, appeals, and a BLM-imposed (Wyoming State Office) moratorium on APD processing essentially halted drilling in the Basin.

As a result, BLM's Buffalo Field Office in Wyoming anticipated that it would be inundated with about 2,000 drilling applications in fiscal year 2003, in addition to a current backlog of 1,400 drilling applications. Because of delays and BLM's inability to process APDs, the federal government has lost about $52 million[11] in unrecoverable royalties from 1987 through October 2002 in the Powder River Basin and is losing about $24 million annually in royalties in the Basin as a result of drainage[12] (see Appendix 4). Most of the $52 million occurred since 1998 when coalbed methane drilling activity began to intensify.

To address the problem of outdated land use plans, BLM, in fiscal year 2001, set out to update its entire planning base of 162 land use plans. These evaluations focused on changes that may have occurred since the plans were last completed to determine what needed to be done to update or revise them.

BLM identified 21 high priority land use plans, collectively referred to as Time Sensitive Plans (TSPs), that it deemed the most critical of the more than 70 ongoing land use planning efforts in fiscal year 2002. BLM selected the TSPs because they were related to the development of energy resources, responded to nationally significant lawsuits, or had legislatively mandated time frames.

We commend BLM on its action to address outdated land use plans, but believe that further action is necessary to institutionalize a continuous land use evaluation and update process. Such a process would prevent future occurrences of outdated land use plans.

Lack of Effective Management Oversight and Accountability

BLM lacked effective management oversight and accountability in the following areas of APD processing:

- Tracking and Monitoring
- Centrally Over-Sighted Permitting Process
- Assessing Staffing Needs
- Guidance
- Partnering
- Environmental Studies and Documentation
- GPRA Goals

[11] This figure was disclosed in a December 2002 report prepared by the Reservoir Management Group of BLM's Wyoming State Office.

[12] Drainage is the migration of oil or gas, or associated resources, across lease lines, which results in a loss of resources without compensation to the government.

Tracking and Monitoring

Inadequate APD tracking and monitoring systems at the BLM field offices visited[13] made it difficult to ascertain the processing stage of the APD or when it would be approved. Field offices did not have a single, standardized tracking system, but instead created their own individual systems to track pending APDs within their respective offices.

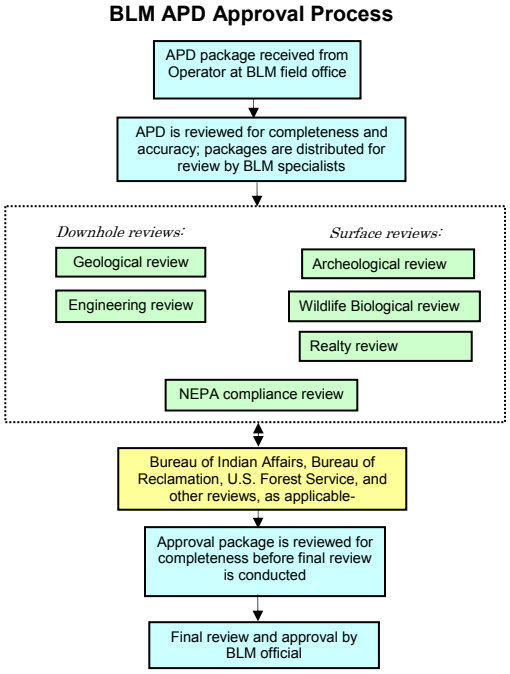


Figure 6

Flowchart compiled by the Office of Inspector General based on its general understanding of APD approval processes at BLM field offices visited.

These systems varied from postings on a bulletin board to a spreadsheet or a shared computer drive. Data entered into these locally created, informal systems were also entered into BLM's Automated Fluid Minerals Support System (AFMSS),[14] which stores well data, including APD data. AFMSS, however, was not designed as a single comprehensive tracking and monitoring system for APD approval processes.

We believe BLM needs one system capable of tracking and monitoring the entire APD approval process. Given that AFMSS already has some of the data elements essential for a tracking and monitoring system, BLM should evaluate whether enhancements to the system could result in an APD tracking and monitoring system.

To accurately track and monitor an APD, the system must provide the specific elements and management tools to determine the overall status of both pending and individual APDs. It should also provide a mechanism for users in headquarters, state, and field offices, as well as in industry, to access real-time APD status information. At a minimum, this mechanism would include the date the APD was received; the dates when specialists initiated and completed their reviews; target approval dates; and explanations, if applicable, as to why target approval dates may not be met.

The tracking and monitoring system should also have the capability of producing status reports. This would include reports, such as aging schedules and pending activity reports, to help managers determine whether APDs were being processed efficiently.

[13] Farmington, New Mexico; Buffalo, Wyoming; and, San Juan Public Lands Center, Durango, Colorado.

[14] AFMSS is BLM's computer software application to support statutory and regulatory requirements for oil and gas development on public and Indian lands. AFMSS is designed to support management of the oil and gas well life cycle and the fields where they are drilled.

Should AFMSS be enhanced as a tracking and monitoring tool, BLM must take steps to ensure that it is not susceptible to unforeseen shutdowns. BLM recognized this problem when AFMSS was shut down twice in recent years because of Indian trust rights litigation.[15] During these periods, APD data could not be entered, and the system would have been useless as a tracking and monitoring tool. BLM has been taking steps to address the continuity of operations issue with AFMSS.

Best Practices - Drawing from other customer based information systems, BLM should explore the possibility of allowing individual operators to access the tracking system and ascertain the status of their applications without having to contact BLM field offices. This accessibility could be likened to the tracking of a Federal Express package using the "Track" feature of the FedEx® website.[16] Empowering operators to track their individual applications should reduce the time spent by field office staff to respond to status inquiries, give staff more time to review permit applications, and improve operator satisfaction.

We were encouraged to learn that AFMSS allows for electronic submission of APDs. Twenty-five of 31 field offices currently receive electronic submissions. At the present time, however, operators cannot electronically track the status of individual APDs submitted. The addition of this feature would move BLM closer to electronic processing of APDs.

[15] *Cobell vs. Norton.*
[16] Refer to www.fedex.com/us/tracking.

Centrally Over-Sighted Permitting Process

BLM needs a coordinated and centrally over-sighted permitting process. Because of BLM's decentralized structure, permitting efficiency, practice, and output varied from field office to field office. Consequently, at the field office level, staff were not held accountable for efficiently processing their portion of APD processing.

To remedy this and emphasize the importance of the permitting process, a manager should be designated to oversee BLM's national APD process. Responsibilities should be linked to performance standards, and the manager held accountable for the entire APD process. In turn, state and field office managers should be accountable for timely and accurate processing of APDs.

Assessing Staffing Needs

BLM field offices visited[17] had no current workload analyses of the APD process. Although the offices had completed workforce plans,[18] the plans did not identify the specific resources needed to process APDs. Workforce plans limit a field office's ability to determine staffing needs for APD processing because the plans are budget driven[19] as opposed to workload or needs driven.

[17] Farmington, New Mexico; Buffalo, Wyoming; and, San Juan Public Lands Center, Durango, Colorado.
[18] Workforce plans are required as part of the Department's *Strategic Human Capital Management Implementation Plan* and are designed, in part, to identify the skills and knowledge needed for fiscal years 2004-2005.
[19] The workforce plan's "Skills and Knowledge Acquisition and Recruitment Strategies" component of the workforce plan instructs the planner that projections of future Full-Time Equivalent needs "should be based on the work that it is expected to have the budgetary resources to support" them.

Some of the field offices visited have increased and changed staffing in recent years in an attempt to keep pace with increased APD approval activity. However, processing delays still occurred. To help reduce delays, BLM field offices need to conduct and periodically update workload analyses. These analyses would allow managers to determine the optimum size and composition of the workforce needed to effectively perform required APD processing tasks.

We commend BLM for exploring alternative means to filling temporary vacancies (for example, moving workers between field offices) until appropriate staffing levels are determined and attained at BLM field offices. However, we believe that a workload analysis is the first step in understanding the staffing that is needed to effectively perform required APD processing tasks.

Guidance

Differences of opinion existed between BLM field office personnel and oil and gas operators on approval time frames and on requirements for submitting permit applications. BLM field office personnel and the operators disagree as to whether applicable regulations and BLM's written guidance impose mandatory time frames for the approval of permits. According to the operators' understanding of the Code of Federal Regulations (CFR) and other implementing guidance, BLM must approve or deny an APD within 30 days after receipt of the data. However, the CFR[20] requires only that BLM take one of the following actions no later than 35 days upon receipt of an APD for federal lands or 30 days for Indian lands:

> (1) Approve the application as submitted or with appropriate modifications or conditions.
>
> (2) Return the application and advise the applicant of the reasons for disapproval.
>
> (3) Advise the applicant, either in writing or orally with subsequent written confirmation, of the reasons why final action will be delayed, along with the date such final action can be expected.

Further, BLM's implementing guidance (Onshore Order No. 1)[21] stipulates that certain circumstances may necessitate more time to approve an APD. For example, delays may result during the preparation of an environmental assessment; when the operator must correct deficiencies or omissions in its application; or when weather conditions prevent BLM specialists from visiting and evaluating the proposed well site.

In addition, BLM receives application packages that are incomplete. Some operators perceive that they can get a head start in the approval process by submitting APD packages as soon as possible, regardless of whether the packages are complete. Other operators submit incomplete applications through misunderstanding of application requirements. The CFR[22] requires specific documents and information but also includes a statement that "such other information as may be required by applicable orders and notices" must be provided. This last item is vague and

[20] 43 CFR 3162.3-1 (h).

[21] Onshore Order No. 1 states that the processing of an APD should be completed within 30 days of receipt, provided that the APD is technically and administratively complete.

[22] 43 CFR 3162.3-1(d). This also provides for the APD process to be initiated at least 30 days before commencement of operations is desired.

contributes to incomplete application submissions.

Partnering

Although BLM's lack of management and oversight has contributed to the processing delays, some factors related to the application process are beyond BLM's control. For example, applications related to wells located on Indian lands and national forests require additional processing by the pertinent Indian Tribe, the Bureau of Indian Affairs, or the U.S. Forest Service. Processing requirements for these organizations can add from 2 months to 2 years to BLM approval times.

BLM should continue to build on its partnering with other affected federal and Tribal entities to reduce processing times for their component pieces of the application process. In this way, BLM will effectively address the issues for which it is directly responsible while proactively working with others to reduce the overall processing time for APDs.

Environmental Studies and Documentation

Although we did not review the adequacy of BLM's environmental reviews, we were told by BLM field personnel that a contributing factor for long permit processing times was the inconsistent elapsed times and volume of documentation gathered in conducting and documenting potential site-specific environmental impacts of oil and gas development. See Figure 7 for an example of the types of environmental impacts that are analyzed and documented.

Figure 7
Pipeline right-of-way, an example of an environmental impact, San Juan Basin
Office of Inspector General Photo

One field office, for example, told us the decision by local management to increase documentation to reduce or prevent legal challenges had increased the time required to conduct environmental assessments and document the results. Environmental reports that had often been less than 15 pages before 2001 could now exceed 100 pages.

We noted that BLM has recognized certain inefficiencies in its NEPA process and, in April 2003, as part of its implementation of the National Energy Policy, issued various instruction memorandums[23] to streamline procedures. In particular, BLM adopted a strategy to conduct, where applicable, environmental analyses on a wider geographic scale covering multiple wells, as opposed to analyzing individual wells. This is a positive development, but BLM still needs to address the basic issue of how environmental reviews can be consistently and expeditiously conducted and documented while meeting NEPA requirements.

[23] BLM Instruction Memorandum Nos. 2003-146, 2003-147, 2003-151, 2003-152, and 2003-153.

GPRA Goals

To determine whether BLM had quantifiable goals and measures for the APD process, we reviewed BLM's fiscal year 2000 – 2005 *Strategic Plan*, BLM's combined fiscal year 2003 *Annual Performance Plan* and fiscal year 2001 *Annual Performance Report*, and BLM's National Energy Policy Tasks. Based on our review, we identified two goals that related to APD processing. Neither goal, however, specifically provided performance measures to evaluate the relative success of the application process.

We also reviewed the Department of the Interior's goal, proposed in its draft *Revised Strategic Plan* for fiscal years 2003 – 2008. The goal was to process the permit applications in backlog status for oil and gas, including coalbed methane.[24] Absent from the *Plan*, however, was a goal to process permit applications that were not backlogged.

If specific quantitative performance measurements are not identified in goals for completing and processing drilling permits, APD processing cannot be afforded the priority it deserves in keeping with the nation's interest of energy development in an environmentally responsible manner.

[24] According to a February 24, 2003 *Federal Register* notice, the Department of the Interior's draft 2004 *Strategic Plan* for fiscal years 2003 to 2008 will be the GPRA document for the entire Department. The *Plan* will not include goals and measures for every aspect of every program. Rather, annual or long-term operating plans or planning documents for individual bureaus should contain greater specificity for discrete program elements. In its final *Strategic Plan,* issued after our fieldwork in September 2003, the Department specified that it plans to process 1,250 permit applications in backlog status, but did not provide for a goal to process APDs that are not in backlog status.

Recommendations

We recommend that BLM take the following actions to improve the efficiency of the APD process:

1. Establish policies and procedures to institutionalize a continuous evaluation and update of land use plans in concert with BLM's current update initiative.

2. Establish one system capable of tracking and monitoring the entire APD process, which should include operator access to application status. This system would include capability of producing status reports, such as, aging schedules and pending activity reports.

3. Establish a nationally coordinated and centrally over-sighted APD permitting process.

4. Ensure that field offices conduct and periodically update workload analyses to determine the appropriate size and composition of the workforce needed to efficiently process APDs.

5. Consolidate, clarify, and issue nationwide APD application guidelines that include all BLM permitting requirements.

6. Continue to work with other federal and Tribal entities to reduce processing time for their component pieces of the application process.

7. Establish procedures for completing environmental studies that are timely, consistent among field offices, and comply with applicable environmental laws.

8. Amend the Department's *Strategic Plan* to include a clearly defined and measurable goal to process APDs not in backlog status or, in the alternative, establish a goal in BLM's annual or long-term operating plans to process APDs not in backlog status.

Appendix 1
Classification of Monetary Amounts

Source	Lost Revenues
Powder River Basin Lost Royalties	$52,000,000[25]

[25] According to BLM's Wyoming Reservoir Management Group, the federal government lost an estimated $52 million in royalties between January 1987 and October 2002 because of gas being drained from federal lands by wells on non-federal lands. Further, as of February 2003, the Group estimated continued drainage royalty losses of about $2 million a month, or approximately $24 million annually. (See Appendix 4 of this report for more details on the royalty and drainage issue.)

Scope and Methodology

The scope of our audit covered all federal and Indian lands under BLM's responsibility, including the subsurface mineral estate for lands administered by the U.S. Forest Service. The audit also encompassed the permit process for oil and gas wells, including wells that produced coalbed methane. The time period covered by our audit was October 2000 through July 2003.

We conducted our fieldwork from November 2002 through July 2003. To accomplish the audit, we visited or contacted BLM field offices located in the major oil and gas producing basins of the western United States. We focused on BLM's permit processes for the Powder River Basin in Wyoming and the San Juan Basin in New Mexico and Colorado and toured the two basins with BLM officials to gain a greater understanding of coalbed methane production. Since at least 2001, the Powder River and San Juan Basins have accounted for a significant portion of the drilling permits issued by BLM.

During our audit, we took the following steps:

- Obtained, reviewed, and analyzed regulations, guidance, pertinent documents, schedules, and other data provided by BLM relating to the permit process.
- Interviewed BLM officials to gain an understanding of the permitting process, discuss problem areas, and identify potential solutions.
- Flowcharted permitting practices used at selected BLM field offices to understand their processes, as well as identify potential weaknesses and opportunities for improvement.
- Evaluated BLM's automated system for recording and storing permit application data and its informal systems for recording permit information to assess the adequacy of the systems being used.
- Interviewed officials representing the Department of the Interior, its bureaus, and other federal, state, and private entities to obtain their concerns and suggestions regarding the permit process. See Appendix 3 for a list of organizations visited or contacted.
- Reviewed procedures used by other organizations to identify possible "best practices."
- Evaluated whether BLM has established performance indicators for the permit process that effectively measured program accomplishments.

Our audit did not address the adequacy of the environmental reviews performed as part of the APD process or the environmental impacts of oil and gas exploration, drilling, and production.

The potential environmental impacts of coalbed methane extraction, in particular, were the subject of litigation, administrative appeals, and intense scrutiny from various interested parties.

We conducted our audit, as applicable, in accordance with the *Government Auditing Standards* issued by the Comptroller General of the United States. Accordingly, we included such tests of records and other auditing procedures as we considered necessary under the circumstances.

As part of our audit, we reviewed the Department of the Interior's Accountability Reports for fiscal years 2000 through 2002, which included information required by the Federal Manager's Financial Integrity Act and BLM's annual assurance statements on management controls for fiscal years 2000 through 2002. Based on that review, we determined that none of the weaknesses reported for the Department and BLM directly related to the objective and scope of our audit.

We also reviewed internal controls over the application for permit to drill process and found weaknesses in the controls over APD processing. These weaknesses are discussed in the body of the report. If implemented, our recommendations should improve internal controls in these areas.

Organizations Visited or Contacted

Office	Location
U.S. Department of the Interior:	
Office of Assistant Secretary for Land and Minerals Management*	Washington, D.C.
Office of Deputy Assistant Secretary for Human Resources*	Washington, D.C.
Bureau of Land Management:	
Washington Office	
Fluid Minerals Group*	Washington, D.C.
National Energy Office*	Washington, D.C.
California State Office*	Sacramento, California
Bakersfield Field Office*	Bakersfield, California
Colorado State Office*	Lakewood, Colorado
Canyon of the Ancients National Monument*	Dolores, Colorado
Columbine Field Office*	Bayfield, Colorado
Mancos/Dolores Field Office*	Dolores, Colorado
Pagosa Springs Field Office*	Pagosa Springs, Colorado
San Juan Public Lands Center	Durango, Colorado
Montana State Office*	Billings, Montana
Miles City Field Office*	Miles City, Montana
New Mexico State Office	Santa Fe, New Mexico
Amarillo Field Office*	Amarillo, Texas
Farmington Field Office	Farmington, New Mexico
Utah State Office*	Salt Lake City, Utah
Moab Field Office*	Moab, Utah
Vernal Field Office*	Vernal, Utah
Wyoming State Office	Cheyenne, Wyoming
Buffalo Field Office	Buffalo, Wyoming
Casper Field Office	Casper, Wyoming
Pinedale Field Office*	Pinedale, Wyoming
Rawlins Field Office*	Rawlins, Wyoming
Reservoir Management Group	Casper, Wyoming
Bureau of Indian Affairs:	
Office of Audit and Evaluation*	Washington, D.C.
Division of Energy and Minerals Resources*	Lakewood, Colorado
Navajo Regional Office*	Gallup, New Mexico
Navajo Region Branch of Real Estate Services*	Window Rock, Arizona
Rocky Mountain Regional Office*	Billings, Montana
Southwest Regional Office*	Albuquerque, New Mexico
Southern Ute Agency*	Ignacio, Colorado
Minerals Management Service:	
Gulf of Mexico Outer Continental Shelf Region	New Orleans, Louisiana
New Orleans District Office	New Orleans, Louisiana
Farmington Indian Minerals Office	Farmington, New Mexico

U.S. Geological Survey:	
Central Regional Office, Energy Resources Team	Denver, Colorado
U.S. Department of Agriculture:	
Office of Inspector General*	Washington, D.C.
U.S. Forest Service, Carson National Forest	Bloomfield, New Mexico
U.S. Environmental Protection Agency:	
Region VIII	Denver, Colorado
State of Colorado:	
Oil and Gas Conservation Commission*	Denver, Colorado
Office of the State Auditor*	Denver, Colorado
State of New Mexico:	
Energy, Minerals and Natural Resources Department, Oil Conservation Division	Aztec, New Mexico
Office of the State Auditor*	Santa Fe, New Mexico
State of Utah:	
State Auditor's Office*	Salt Lake City, Utah
State of Wyoming:	
Wyoming Oil and Gas Conservation Commission*	Casper, Wyoming
State Auditor's Office*	Cheyenne, Wyoming
Indian Tribal Governments:	
Southern Ute Indian Tribe*	Ignacio, Colorado
The Navajo Nation*	Window Rock, Arizona
Ute Mountain Ute Tribe*	Towaoc, Colorado
Environmental Organization:	
Powder River Basin Resource Council*	Sheridan, Wyoming
Industry Associations and Companies:	
American Petroleum Institute*	Washington, D.C.
BHP Billiton	Waterflow, New Mexico
Banko Petroleum Management*	Lone Tree, Colorado
British Petroleum*	Houston, Texas
Burlington Resources*	Farmington, New Mexico
Domestic Petroleum Council*	Washington, D.C.
Independent Petroleum Association of Mountain States	Denver, Colorado
Office Technology Systems*	Wheat Ridge, Colorado
Walsh Engineering and Production Corporation*	Farmington, New Mexico
Williams Field Services*	Tulsa, Oklahoma

***Offices contacted only**

Appendix 4
Royalties and Drainage

As the landowner, the federal government receives a payment, known as a royalty,[26] for its share of the revenues[27] derived from the sale of oil and gas. When oil and gas production is delayed, the loss in revenues and corresponding royalties can be substantial. For example, we computed that the average gas well in the San Juan Basin of New Mexico and the Powder River Basin of Wyoming, in recent years, paid royalties of about $275,000 and $22,000, respectively.

Royalties can be lost by drainage, a condition that develops when drilling activity on federal leases does not keep pace with drilling on adjacent state and privately owned tracts of land. Because oil and gas naturally move (or drain) toward areas of reduced pressure created by nearby wells, oil and gas that lie beneath federal land can drain and be produced from wells located on state and private land.

The royalties associated with the drained minerals are considered permanently lost because court decisions have generally ruled that landowners may produce all oil and gas from their land, including that which migrates onto their land through drainage. BLM can mitigate the effects of drainage by requiring lessees to monitor their leases and, if necessary, drill an offset well to prevent drainage, or by requiring the lessee to pay compensatory royalties.[28]

Drainage is significant in oil and gas regions that have mixed ownership (state and private) of surface property, subsurface minerals, and close spacing of wells, such as in the Powder River Basin. The Reservoir Management Group of the BLM's Wyoming State Office is responsible for monitoring drainage in Wyoming. In a December 2002 report, the Group estimated that $52 million in royalties were lost from 1987 through October 2002.[29] Most of this amount occurred since 1998, which coincides with the increase in coalbed methane drilling activity in the Basin. At the end of our fieldwork, the Group was processing 127 drainage cases and estimated that the federal government loses about $2 million a month or $24 million annually in royalties.

Although more than 500 drainage protection wells have been approved by BLM in the Powder River Basin since January 2000, litigation associated with inadequate land use plans has slowed or halted the drilling of additional protection or offset wells.

[26] The royalty rate is usually one-eighth of the operator's sales proceeds, but can be one-sixth or some other agreed upon sharing arrangement between the lessee and landowner.

[27] Royalty revenues are distributed according to federal law, which generally requires a 50/50 share between federal and state governments.

[28] A compensatory royalty is a royalty paid by the operator to the landowner in lieu of drilling an offset well to prevent drainage.

[29] None of this amount was applicable to Indian lands.

Appendix 5
Status of Audit Recommendations

Recommendation	Status	Action Required
1 - 8	Unresolved Additional Information Needed	Concur or nonconcur with each recommendation and provide information on actions taken or planned to implement each recommendation, including target date and title of official responsible for implementation.

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Washington Metro Area	(202) 208-5300
Hearing Impaired	(202) 208-2420
Fax	(202) 208-6081
Caribbean Region	(340) 774-8300
Hawaii Field Office	(808) 525-5310

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