QUESTAR

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Michele Easley, Project Lead
Bureau of Land Management
Kemmerer Field Office
312 Highway 189 North
Kemmerer, WY 83101

Re: Comments of Wexpro Company and Questar Exploration and Production Company regarding the October 12, 2007 Moxa Arch Draft Environmental Impact Statement

Dear Ms. Easley:

The following comments are submitted on behalf of Wexpro Company (Wexpro) and Questar Exploration and Production Company (Questar E&P) in response to the Draft Environmental Impact Statement (DEIS) issued on October 12, 2007 by the Bureau of Land Management (BLM) for the Moxa Arch Area (MAA) Infill Gas Development Project.

Introductory Remarks

The DEIS considers the Proposed Action submitted by the Moxa Arch Operators Group (Operators) and three alternatives. Of these alternatives, Alternative A (the "no action" alternative) and Alternative C, which assumes 5,165 new (all vertical) wells, are not viable alternatives and will not be addressed. The remaining alternative considered, Alternative B, allows the same number of wells drilled as Alternative C, "as long as active, unreclaimed surface disturbance associated with oil and gas drilling and exploration activities across the MAA is less than 10,921 acres ...." (DEIS, p. 2-12). This surface disturbance limitation effectively results in a second "no action" alternative for the reasons discussed below. Due to this unrealistic surface disturbance restriction, Alternative B cannot meet its stated intention to "allow the Operators to fully develop the Moxa Arch project area while conserving the key resource values identified ...." (DEIS, p. 2-12).

Our analysis addresses the standard for measuring a preferred alternative, considering the environmental impact of oil and gas development. We then discuss the significant flaws in Alternative B. Finally, we will explain why the Operators' Proposed Action best protects the environment and enhances reclamation while allowing responsible oil and gas development.

I. The Record of Decision (ROD) must recognize the role of appropriate oil and gas development in the MAA.

The current Kemmerer and Green River Resource Management Plans (RMPs) allow for continued oil and gas exploration, leasing and development in accordance with applicable policies and enabling legislation. These laws include the Mineral Leasing Act of 1920, as amended; the Mining and Minerals Policy Act of 1970; the Federal Land Policy and Management Act of 1976 (FLPMA); and the Federal Onshore Oil and Gas Leasing Reform Act of 1987. The DEIS sets forth the following purposes:

> The BLM oil and gas leasing program encourages development of domestic oil and gas reserves. Natural gas is an integral part of the energy future of the United States because it is readily available and a market delivery infrastructure is already in place. By developing domestic reserves of clean burning natural gas, the United States would reduce dependence on foreign energy, such as natural gas from Mexico and Canada. (DEIS, p. 1-8).

The alternative selected by the BLM should conserve the environment and provide for reclamation of disturbed lands while still allowing efficient development of energy resources (See BLM Onshore Orders 1 and 2). However, Alternative B would drastically restrict operations in the project area, resulting in little energy development.

II. Alternative B does not allow for a realistic level of surface disturbance, cannot be effectively administered, fails to specify reclamation criteria or timing, will force migration of oil and gas operations to state/private lands and could result in a deprivation of property rights.

a. Full field development cannot occur under Alternative B due to insufficient amount of allowed surface disturbance.

Alternative B purports to allow the drilling of 5,165 wells over the next 25 years, equal to the level of development described in Alternative C. However, the linchpin of Alternative B is the restriction of oil and gas operations based on a total surface disturbance of 10,921 acres, using the 1997 ROD as the beginning point of reference. After taking into account an estimated existing surface disturbance of 8,073 acres and allocating 1,484 more acres to state/private lands, Alternative B only allows for 1,364 additional acres for further development on federal leases. Based on the BLM's estimate of ten acres of disturbance per new well pad, this 1,364-acre inventory of available surface disturbance will allow for 136 wells--only one to two years' of drilling activity at current levels. This is a significant departure from the 5,165 wells supposedly allowed under Alternative B.

b. Alternative B will not improve reclamation practices and may accelerate initial surface disturbance.

Alternative B's aggregate acreage cap and reclamation offset presumes that all operators will be equally diligent in their reclamation activities. However, the MAA is home to scores of mineral interest owners and dozens of operators with various levels of reclamation. With this large group of competing producers with disparate economic interests, Alternative B's low acreage limit will not serve as an incentive to operators to improve individual reclamation practices; rather, it will encourage operators to first use the limited amount of available acreage through drilling rather than pursuing reclamation.

c. Alternative B's reclamation program does not specify how it will be administered.

Alternative B provides little guidance or criteria to be used to determine acceptable reclamation for release of additional acreage to production, nor does it address *when* results of interim and final reclamation will be reviewed and accepted by the BLM. Reclamation guidelines should be standardized. The most effective means of accomplishing this is through the efforts of the third-party professionals under the supervision of the Kemmerer Field Office (KFO). Once minimum standards are set, there is no reason that review and acceptance cannot be conducted immediately when interim and final reclamation is performed. Even with standardization of reclamation processes, Alternative B is still objectionable because there is not enough surface disturbance area to accommodate expected drilling plans.

d. Alternative B fails to consider the checkerboard ownership in the MAA and will push development to non-federal lands.

Alternative B allows for disturbance of 2,848 acres, with 1,364 acres assumed to occur on BLM-managed land. The remaining 1,484 acres are allocated to state and privately-owned surface. However, oil and gas development in the two sectors is subject to vastly different restraints on development. Development on federal land is subject to numerous stipulations (see DEIS, Appendix A) that restrict the timing and location of development. Any new well is subject to geographical limits, seasonal stipulations, and surveys for species activity. Additionally, APD approval is subject to the backlog and delay that burdens the KFO. By comparison, drilling on non-federal sections of the MAA is subject to limited regulation and review, with approval of well sites routinely obtained within weeks.

Development will likely follow the path of least resistance, especially when drilling opportunities are scarce. Wexpro and Questar E&P, whose mineral interests are principally on federal lands, will be at a disadvantage as the Alternative B acreage allotment is disproportionately consumed on non-federal sections. As drilling migrates from federal lands, both state and federal revenues will be impacted. Unit agreements

could be jeopardized and operators subject to possible compensatory royalty payments as development obligations are delayed or foregone.

e. Directional drilling as contemplated under Alternative B will not be economically viable in many circumstances and will result in undeveloped acreage in the MAA.

The DEIS mentions directional drilling as a means to allow continued development while minimizing surface disturbance. It states:

> To achieve a reduction in surface disturbance, the operators could employ a variety of development and reclamation techniques *including drilling multiple wells from a single well pad*; centralizing production facilities; minimizing topsoil removal during construction; and co-locating power lines, flowlines, and roads in common utility corridors. (DEIS, p. 4-22. See also pp. 4-35, 4-42, 4-48, 4-52, 4-57 and 4-63, emphasis added.).

As available acreage for vertical drilling is consumed, Alternative B anticipates increased directional drilling. Unfortunately, the BLM failed to consider evidence regarding the time and cost of this option. Specifically, the Operators submitted a technical analysis titled "Using Directional Drilling to Extract Natural Gas from the Moxa Arch Area Southwestern Wyoming". As detailed in the paper, directional drilling in the MAA adds from $600,000 to $750,000 to the typical cost of a well. The estimated incremental cost could be as much as $1,250,000 for a 1,475-foot bottomhole offset. Drilling time (with its adverse air and water quality impact), could increase by 250% as compared to a typical vertical infill well.

The Operators' analysis states, "[c]onsideration and evaluation of the subsurface geology of the Moxa Arch area does not preclude the use of directional drilling to produce natural gas from the Frontier and Dakota formations. Directional drilling in the Moxa Arch area is technically feasible." (DEIS p.11.) This *technical* summary should not be viewed in an *economic* vacuum. Directional drilling as practically required under Alternative B cannot be presumed to be economically viable and will not guarantee that acreage in the MAA will be fully developed.

f. Administration of Alternative B could result in substantial deprivation of property rights giving rise to a takings cause of action.

Drilling is subject to extensive geographical and seasonal restrictions and prohibitions for big game and various species habitat, Native American discoveries, archeological restrictions, historical trails, and riparian and wetland restrictions. In short, the affected environment in the MAA is already adequately protected with drilling subject to substantial restriction.

Alternative B is likely to result in a dwindling amount of available acreage and well locations depriving access to recoverable hydrocarbons for which federal lessees have vested property rights. Whether this would constitute a complete or even substantial deprivation of property rights will depend on a number of factual developments. Nevertheless, Alternative B is legally problematic in that it could well reduce and/or substantially delay otherwise viable oil and gas development in the MAA, giving rise to a potential takings claim.

III. The Proposed Action meets the purpose of the DEIS, is consistent with applicable RMPs, and follows the overall policies of federal law.

Improved reclamation is an overarching theme of the DEIS. The Proposed Action establishes a proactive approach that provides for objective reclamation standards and administration. This is summarized in the DEIS (pp. 2-5 to 2-7) as follows:

a. The Operators commit to engage a reclamation specialist to provide expertise and recommendations to the agencies and Operators.

The reclamation specialist would develop an initial reclamation plan and periodic revisions, evaluate reclamation techniques in other BLM jurisdictions and in other extraction industries, and tailor techniques to different areas of the MAA as needed. The initial plan would incorporate ongoing monitoring and subject to modification, be finalized as the "Moxa Area Reclamation Plan."

b. The Operators commit to provide funding for inspection and enforcement as required by the KFO.

As part of an annual reclamation monitoring progress report, the level of funding and KFO support would be reevaluated annually by the KFO and the Operators. The Operators would select a lead party to handle billing and provide supervision of the third-party contractors and specialists.

c. The Operators commit to monitor interim and final reclamation operations by performing inspections using an independent third-party contractor.

This will provide a uniform evaluation of reclamation across the MAA, regardless of surface ownership or Operator. Reclamation standards will be based on requirements of both the KFO and the State of Wyoming. The duties of the contractor would include:

- visiting all MAA locations to document the progress of interim and final reclamation efforts;
- developing quantifiable documentation to be submitted to the BLM and State of Wyoming on a periodic basis;

- providing location/lease/operator data to the agencies in geographic information systems (GIS) format; and

- submitting annual summary progress reports to the Operators by the contractor to track reclamation effectiveness.

d. Offsite mitigation would be considered by the Operators as necessary when reclamation monitoring indicates poor results.

After interim reclamation is completed, the new long-term disturbance associated with project development is estimated to be approximately 5,997 acres. It is expected that this level of disturbance would be present for the life of the wells (approximately 50 years; 10 years of drilling and 40 years of production). The Operators would continue to limit long-term surface disturbance by implementing a road network that minimizes the construction of new access roads and reclaim as much of the short-term disturbance as possible. The Operators would also adhere to all conditions included with their leases and to all federal and state laws and regulations.

Conclusion

Wexpro and Questar E&P will do all that is necessary to cooperate and work with the BLM as well as other Operators to promote proper reclamation in the MAA. The Proposed Action is the most effective means of protecting the environment while still allowing development of energy resources.

Sincerely,

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