

**DECISION RECORD**

**Bill Barrett Corporation, Wardner Ranch Fed 44-22-4978SH Application for Permit to Drill (APD)  
Categorical Exclusion 1 (CX1), WY-070-390CX1-12-152  
Buffalo Field Office, Bureau of Land Management**

**DECISION.** The BLM approves the proposal from Bill Barrett Corporation for the drilling of 1 conventional oil well, the Wardner Ranch 44-22-4978SH, located in Section 22, T49N R78W, federal lease WYW129051, and right-of-way. The well will be drilled to hold the lease and will not be put into production at this time. The operator plans to drill and produce more wells in the future in the project area, as noted in the CX1 worksheet, WY-070-390CX1-12-152 which is incorporated here by reference.

**Compliance.** This decision complies with:

- Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701); DOI Order 3310.
- National Environmental Policy Act of 1969 (NEPA) (42 USC 4321).
- Energy Policy Act of 2005 (119 Stat. 748 Public Law 109-58)
- Endangered Species Act of 1974 (16 USC 1531).
- Buffalo and Powder River Basin (PRB) Final Environmental Impact Statement (FEISs), 1985, 2003.
- Buffalo Resource Management Plan (RMP) 1985, Amendments 2001, 2003, 2011.

**A summary of the details of the approval follows.** The CX1 worksheet, WY-070-390CX1-12-152 includes the project description, including site-specific mitigation measures. Mitigation measures will include the conditions of approval (COAs) in Appendix B of the CX worksheet.

The BLM approves the following APD.

Well Name	QRT/QRT	Sec.	Township	Range	NOS Received
Wardner Ranch Fed 44-22-4978SH	SESE	22	49	78	2/14/2011

**THE FINDING OF NO SIGNIFICANT IMPACT (FONSI).** The US Congress, Department of Interior, and BLM affirmed there was no significant impact of a like-structured project when they created this CX1 and its limiting parameters so there is no requirement for a FONSI, EIS, or EA.

**DECISION RATIONALE.** The approval of this project is because:

1. The project will not adversely affect public safety and does not involve any unique or unknown risks.
2. The project will not result in a violation of any federal or known state or local law, statute or ordinance, or other requirement imposed for the protection of the environment.
3. The approved project conditioned by its design features and COAs, will not result in any undue or unnecessary environmental degradation.
4. New information regarding sage-grouse includes the 2012 BLM-contracted population viability analysis for the Northeast Wyoming sage-grouse. That study found that there remains a viable population of sage-grouse in the PRB (Taylor et al. 2012); however threats from energy development and West Nile Virus (WNV) are impacting future viability (Taylor et al. 2012). The study indicated that effects from energy development, as measured by male lek attendance, are discernible out to a distance of 12.4 miles. Juniper Draw Kestrel POD (WY-070-EA06-323) contains the affected environment information concerning sage-grouse. The PRB FEIS predicted that the PRB oil and gas development would have significant impacts to the sage-grouse population. The impact of the Wardner Ranch 44-22-4978SH development may cumulatively contribute to the potential for local extirpation yet its effect is acceptable because it is outside priority habitats and is within the parameters of the PRB FEIS/ROD and current BLM and Wyoming sage-grouse conservation strategies.

5. This decision approving the Wardner Ranch Fed 44-22-4978SH APD complies with the Energy Policy Act of 2005, Section 390; 43 CFR 1610.5; 40 CFR 1508.4; and 43 CFR 46.215.
6. Approval of this project conforms to the terms and the conditions of the 1985 Buffalo RMP (BLM 1985) and subsequent update (BLM 2001) and amendments (BLM 2003, 2011). This project complies with the breadth and constraints of CX1, Energy Policy Act of 2005, and subsequent policy.
7. The selected alternative will help meet the nation's energy needs, revenues, and stimulate local economies by maintaining workforces.
8. The project is clearly lacking in wilderness characteristics because it is amidst gas development.
9. This decision does not foreclose the lessee or operator to propose a new or supplementary plan for developing the federal oil and gas lease(s) in this project area, including submission of additional APDs to drain minerals in accord with lease rights and law.

**ADMINISTRATIVE APPEAL.** This decision is subject to administrative appeal in accord with 43 CFR 3165. Request for administrative appeal must include information required under 43 CFR 3165.3(b) (State Director Review), including all supporting documentation. Such a request must be filed in writing with the State Director, Bureau of Land Management, P.O. Box 1828, Cheyenne, Wyoming 82003, no later than 20 business days after this Decision Record is received or considered to have been received. Any party who is adversely affected by the State Director's decision may appeal that decision to the Interior Board of Land Appeals, as provided in 43 CFR 3165.4.

Field Manager: Kathleen R. Bues Date: 06/01/12

**Categorical Exclusion 1 (CX1), WY-070-390CX1-12-152**  
**Section 390, Energy Policy Act of 2005**  
**Bill Barrett Corporation, Wardner Ranch Fed 44-22-4978SH**  
**Buffalo Field Office, Bureau of Land Management**

**Description of the Proposed Action**

Bill Barrett Corporation requests approval of their application for permit to drill (APD) for Wardner Ranch 44-22-4978SH horizontal oil well drilled to the Shannon formation at a total depth of 8,966 feet. The need for this project is to determine how and under what conditions to balance natural resource conservation with allowing the operator to exercise lease rights to develop fluid minerals development of 1 horizontal oil well, Wardner Ranch Fed 44-22-4978SH on federal lease WYW 129051, as described in their APD, surface use plan, and drilling plan, incorporated here by reference. Wardner Ranch (Anadarko Petroleum Corporation) is the surface owner. The extraction of fluid minerals is important to meeting the nation's energy needs. The fluid mineral leasing programs fall under the authority of the Mineral Leasing Act of 1920, the Federal Land Policy Management Act (FLPMA), and other laws and regulations.

Operations would occur in the following location:

<b>WELL NAME</b>	<b>QRT/QRT</b>	<b>SEC</b>	<b>TOWNSHIP</b>	<b>RANGE</b>	<b>NOS RECEIVED</b>
Wardner Ranch Fed 44-22-4978SH	SESE	22	49	78	11/10/2011

The project is subject to the conditions-of-approval (COAs) for drilling an oil well in the BFO area under standard split estate jurisdiction. For a detailed description of design features and construction practices associated with the proposed project, refer to the surface use plan (SUP) and drilling plan. Refer to attached maps in Appendix A for Top and Bottom Hole locations, as well as horizontal bore path.

Operations would include the following performed by Bill Barrett Corporation and/or their contractors:

- Construction of a drilling pad with dimensions of approximately 400 feet by 300 feet; cut & fill length 1,710 feet by 15 feet; tank site area of 275 feet by 125 feet; accounting for 4.62 acres of disturbance.
- After drilling and completion, the well pad area will be reduced to approximately 1.50 acres for the production phase by reclamation of disturbed areas created during construction that would not be needed should the well be placed into production.
- Federal ROW access-only grant WYW-168333 obtained previously for the Wardner Ranch Fed 24-23-4978SH well is applicable to this location.
- A road network consisting of existing improved roads and construction of 310 feet of single lane crown & ditch surface road as access onto the well pad.
- An agreement to maintain shared roads with other oil and gas operators in a condition the same as or better than before operations began.
- Buried power not within a corridor from a meter pole and panel. No new overhead power proposed. There is existing 3-phase overhead power in the project area.
- No pipelines (oil, gas, water) are proposed for this project. If the well is determined to be economically viable and put into production, a water disposal strategy will be proposed by sundry application. Presently the well will hold the lease.
- Erosion mitigation measures outlined in the Surface Use Plan and on Erosion Mitigation map including: 1) Well pad fill slopes updated to 2:1 for adequate interim reclamation; 2) Native topsoil stockpiled upslope west of pad; 3) Diversion ditch cut around outside entire cut/fill toe slope perimeter to intercept run-off from precipitation events; 4) Catch basin added at east side of pad at fill toe slope low point to hold run-off from precipitation events; 5) Silt fence install downslope of catch basin to prevent blowout if large precipitation event causes much run-off; 6) Straw wattles installed

every 5 feet perpendicular in ditch at SE corner of fill toe slope to dissipate any downslope run-off flow energy; 7) Wing ditches added on south side of pad (cut slope) to direct downslope flow of precipitation run-on away from pad and toward existing vegetative border; 8) Minimum 20 foot undisturbed vegetative border maintained to edge of adjacent drainage.

- Design feature for “bird cone” placement on heater-treater to avoid bird/bat mortality.
- Drilling, testing and completion of the well. If determined to be economically viable, the well would be put into production. Production facilities would be placed on the site, including a pump jack, separation equipment and storage tanks according to the Production Facility Pad/Shrink Map attached to the Surface Use Plan. The facilities and site would be operated and maintained for the life of the well.
- Temporary living accommodation on well pad during drilling and completion operations as addressed in the Surface Use Plan narrative.
- For hydraulic fracturing and completion, the operator intends to place Poseidon (or comparable brand) above-ground storage tanks on site at the south side of well pad. Above ground tanks require a smaller footprint than traditional tanks used in hydraulic fracturing, and generally require 30% fewer truck trips for delivery and removal.
- For drilling operations fresh water will be trucked from the WaterCo load out facility on Dead Horse Creek exit of I-90. For completion operation, the operator will work with Devon Energy Production Company to see if CBNG produced water from the Juniper Draw POD adjacent to the project can be amended and used. If not, water will be obtained from an approved commercial facility. No flowback or completion fluids will be allowed in the reserve pit and will be disposed of in an approved manner.
- If the well is not found to be economically viable, all areas disturbed during construction would be reclaimed to approximate pre-disturbance condition, and the well bore would be plugged per State of Wyoming and BLM policy and regulations.

The total new surface disturbance for this action consists of: 4.90 acres (see table, below).

### **Plan Conformance**

The proposed project conforms to the terms and the conditions of the Buffalo Resource Management Plan (RMP), 1985, amended 2001, 2003, and 2011. The development area is clearly lacking wilderness characteristics as it is in the midst of extensive coalbed natural gas (CBNG) development with miles of mechanically maintained roads, (see DOI Order 3310). The Energy Policy Act of 2005 subjects oil or gas exploration or development to a rebuttable presumption that the use of a categorical exclusion under the National Environmental Policy Act (NEPA) applies. Thus BLM must use an Energy Policy Act CX unless BLM can prove such CX is inapplicable. This CX worksheet is a form of NEPA compliance categorically excluded from the analysis that occurs in an EA or EIS. BLM H-1790, p. 17.

The applicable categorical exclusion from the Energy Policy Act of 2005 is exclusion number (b)(1) which is *individual surface disturbances of less than 5 acres so long as the total surface disturbance on the lease is not greater than 150 acres and site-specific analysis in a document prepared pursuant to NEPA has been previously completed.*

A Section 390 Categorical Exclusion 1 (BLM NEPA Handbook, Appendix. 2) has 3 requirements:

- 1) The project must disturb less than 5 acres on the site. If more than 1 action is proposed for a lease (for example 2 or more wells), each activity is counted separately and each may disturb up to 5 acres. Similarly, the 5-acre limit applies separately to each activity requiring discrete BLM action, such as each APD, even though for processing efficiency purposes the operator submits for BLM review a large master development plan addressing many wells. The surface disturbance for the Wardner Ranch Fed 44-22-4978SH well is as follows:

**Disturbance Summary for Wardner Ranch Fed 44-22-4978SH**

Facility	No. or Mileage	Factor	Disturbance (acres)	Duration
Well Pad During Drilling & Construction Operations	1 400 ft. x 300 ft.	W*L/43560 acre	2.75 acres	Short term
Cut & Fill During Drilling & Completion; Topsoil pile	1,710 ft. x 15 ft.	W*L/43560 acre	1.09 acres	Short term
Tank Site Area During Drilling & Completion	275 ft. x 125 ft.	W*L/43560 acre	0.78 acres	Short term
*Well Pad After Drilling & Completion During Production	300 ft. x 225 ft.	W*L/43560 acre	2.75 acre Well Pad Reduced to 1.5 acres	Long term
New Improved Road (including Spot Upgrades)	310 ft	20 ft.	0.14 acres	Long term
Buried power	400 ft.	15 ft.	0.14 acres	Short term
Pipelines (oil, gas, water)	0	30 ft.	N/A	N/A
<b>Total</b>			<b>4.90 acres</b>	

\*NOTE: After the drilling & construction phase, the pad size will be reduced to 1.50 acres of disturbance during production, reducing the disturbance by 3.12 acres. This figure is not cumulative and has not been added to the total disturbance.

- 2) The current un-reclaimed surface disturbance readily visible on the entire leasehold must not be greater than 150 acres, including this proposed project. This includes previous disturbances supporting lease development. The 150-acre limit applies separately to each federal lease supporting the development. Lease WYW129051 has a total of 1,040 acres. There are 24 existing CBNG wells within this lease, 9 of which are locations with two wells per site. All CBNG well sites are non-constructed pads which account for 2.40 acres of disturbance. There are 2 existing oil wells, accounting for 7.22 acres if disturbance. There are approximately 5.23 miles of improved roads which account for 19 acres of disturbance. There are 7 reservoirs permitted by the State Engineer’s Office on lease WYW129051, which account for 23.2 acres of disturbance. There is 1 compressor station which accounts for 20 acres of disturbance. There is 1 gathering station that accounts for approximately 19.32 acres of disturbance. Including the proposed action with 4.90 acres of disturbance, the total surface disturbance for lease WYW129051 will be 76.04 acres, well under the 150-acre limit which applies separately to each federal lease supporting the development.
  
- 3) There must be a site-specific NEPA document (not just leasing) that covers the boundaries of the proposed project. This NEPA document may be an exploration or development EA/EIS; it may be part of a specific master development plan, a multi-well EA/EIS, or an individual permit approval EA/EIS. The NEPA document must have analyzed the type of activity or project being considered; yet it need not have addressed the specific permit or application being considered.

The area had historic conventional oil and gas exploration and production, and recent CBNG development. The project area is adjacent to the boundaries of 3 CBNG plans of development (PODs) that include 92 wells, see Table 1.). There are 96 oil and gas wells within a 4 mile radius of the project area for this proposal (WOGCC as of November 2, 2011). This proposal falls within the foreseeable development scenario that was analyzed in the tiered NEPA documents required to use a CX1.

**Table 1. Adjacent or Overlapping CBNG & Oil Well Development**

NEPA Document Name	NEPA Document or #	Decision Date
Juniper Draw Kestrel POD	WY-070-EA06-323	09/29/2006
Juniper Draw Merlin POD	WY-070-EA05-262	09/02/2005
Aerial POD	WY-070-EA06-170	05/08/2006

**Table 1. Adjacent or Overlapping CBNG & Oil Well Development**

NEPA Document Name	NEPA Document or #	Decision Date
Wardner Ranch 24-23-4978SH	WY-070-390CX1-12-034	11/15/2011
Federal W-67912 15-15 (aka USA 15-15)	WY-3109/82-439-P	03/03/82
Powder River Basin FEIS	FEIS (WY-070-02-065) & Record of Decision (ROD)	04/30/2003

**Plan of Operations**

The proposal design conforms to all Bureau standards and incorporates appropriate best management practices, required and design mitigation measures determined to reduce the effects on the environment. BFO reviewed a surface use plan (SUP) of operations which described all proposed surface-disturbing activities and approves the SUP pursuant to Section 17 of the Mineral Leasing Act, as amended.

**Realty**

The following right-of-way location was identified with the Wardner Ranch Fed 24-23HS APD. Right-of-way WYW-168333 will be granted under the Federal Land Policy and Management Act of 1976. Use of the following location is authorized after separate issuance of the grant. This right-of-way will fall within the constraints of the appropriate stipulations and conditions of approval of the APD.

ROW Grant	ROW Action	Section	Township	Range	Lengths	Width
WYW-168333	Road	21,28,29	49N	78W	1.8 miles	40'

**Cultural Resources**

The project is in an area with a previously adequate inventory. The proposed project will not impact any historic properties. Following the Wyoming State Protocol Section VI(A)(1) the BLM electronically notified the Wyoming State Historic Preservation Officer (SHPO) on May 31, 2012 that no historic properties are in the area of project effects. If any cultural values [sites, artifacts, human remains (Appendix L PRB FEIS and ROD)] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. Further discovery procedures are explained in the Standard COA (General)(A)(1).

**Water Resources**

The historical use for groundwater in this area was for stock water or domestic purposes. A search of the WSEO Ground Water Rights Database showed 2 registered stock and domestic water wells within 1 mile of the proposed well(s) in the project area with depths ranging from 300 to 405 feet. For additional information on groundwater, refer to the PRB FEIS (2003), Affected Environment, pp. 3-1 to 3-36.

Adherence to the drilling COAs, the setting of casing at appropriate depths, following safe remedial procedures in the event of casing failure, and using proper cementing procedures should protect any fresh water aquifers above the target coal zone. This will ensure that ground water will not be adversely impacted by well drilling and completion. The operator will run surface casing to 3,000 feet, total vertical depth to protect shallow aquifers. The top of cement for the intermediate string will be calculated to 1,000 feet above the Fox Hills formation.

At the time of permitting, the volume of water that will be produced in association with these federal minerals is unknown. The operator will have to produce the well for a time to be able to estimate the water production. In order to comply with the requirements of Onshore Oil and Gas Order #7, Disposal of Produced Water, the operator will submit a sundry to the BLM within 90 days of first production which includes a representative water analysis as well as the proposal for water management.

Historically, the quality of water produced in association with conventional oil and gas has been such that surface discharge would not be possible without treatment. Initial water production is quite low in most cases. There are three common alternatives for water management: Re-injection, deep disposal or disposal into pits. All alternatives would be protective of groundwater resources when performed in compliance with State and Federal regulations.

**Wildlife Resources**

Big Horn Environmental Consultants (BHEC) performed a habitat assessment and wildlife inventory surveys. BHEC surveyed for mountain plover, sharp-tailed grouse, greater sage-grouse, raptor nests, and prairie dog colonies in 2011 (BHEC 2011). BHEC searched for potential Ute ladies’-tresses orchid habitat (BHEC 2011). BHEC conducted all surveys according to the PRB Interagency Working Group’s protocols, available on the BFO internet website at: [http://www.blm.gov/wy/st/en/field\\_offices/Bufalo/wildlife.html](http://www.blm.gov/wy/st/en/field_offices/Bufalo/wildlife.html).

The wildlife biologist determined that the proposed APD, combined with the COAs are: (1) consistent with the FEIS (WY-070-02-065) and its supplements, to include biological opinion (ES-6-WY-02-F006), the RMP and its Amendments, and the above tiered EAs; and (2) consistent with the effects analyzed in the site specific Endangered Species Act section 7 consultation and does not change the determinations in that consultation. Effects to wildlife are anticipated to be similar to those discussed in the Juniper Draw Kestrel POD EA, WY-070-EA06-323.

**Greater Sage-grouse (sage-grouse)**

New information regarding sage-grouse includes the 2012 BLM-contracted population viability analysis for the Northeast Wyoming sage-grouse. That study found that there remains a viable population of sage-grouse in the PRB (Taylor et al. 2012); however threats from energy development and West Nile Virus (WNV) are impacting future viability (Taylor et al. 2012). The study indicated that effects from energy development, as measured by male lek attendance, are discernible out to a distance of 12.4 miles. Juniper Draw Kestrel POD (WY-070-EA06-323) contains the affected environment information concerning sage-grouse.

The PRB FEIS predicted that the PRB oil and gas development would have significant impacts to the sage-grouse population. The impact of the Wardner Ranch 44-22-4978SH development may cumulatively contribute to the potential for local extirpation yet its effect is acceptable because it is outside priority habitats and is within the parameters of the PRB FEIS/ROD and current BLM and Wyoming sage-grouse conservation strategies.

**Persons and Agencies Consulted**

<b>Name</b>	<b>Company/Agency</b>	<b>Title</b>
Scott Jawors	BLM	Wildlife Biologist
G.L. “Buck” Damone III	BLM	Archeologist
Amber Haverlock	BLM	Realty Specialist
Matthew Warren	BLM	Petroleum Engineer
Arnie Irwin	BLM	Soil Scientist
Sharon Soule	BLM	LIE
Kerry Aggen	BLM	Geologist
Paul McElvery	Bill Barrett Corporation	Water Resource Engineer
Rachel Matchin	Bill Barrett Corporation	Environmental Compliance
John Kelley	BLM	NEPA Coordinator
Debby Green	BLM	Natural Resource Specialist
Kathy Brus	BLM	Supervisory NRS

**Decision and Rationale on Action**

I approve the Wardner Ranch Fed 44-224978SH using the rationale and conditions of approval (COAs) attached as Appendix B.

The attached COAs (Appendix B) and/or terms and conditions provide justification for this decision and may not be segregated from project implementation without further NEPA review. In addition my review of the plan conformance statement and determined that the proposed project is in conformance with the applicable land use plan(s) and none of the extraordinary circumstances apply as described in Appendix 6 of the BLM NEPA Handbook. I reviewed the proposal to ensure the appropriate exclusion category as described in Section 390 of the Energy Policy Act of 2005 is applied correctly. I determined this project requires no further environmental analysis.

Kathleen R. Bruce  
Field Manager

06/01/12  
Date

**Contact Person**

For additional information concerning this decision, contact: Debby Green, Natural Resource Specialist, Buffalo Field Office, 1425 Fort Street, Buffalo WY 82834, 307-684-1058.

**References:**

Taylor, R. L., D. E. Naugle, L. S. Mills. 2012. Viability analyses for conservation of sage-grouse populations: Buffalo Field Office, Wyoming. Final Report. February 27, 2012. University of Montana, Missoula, MT.

Big Horn Environmental Consultants. 2011. Wardner Ranch 44-22-4978SH Wildlife Survey and Habitat Report. Sheridan, WY. 12pp.