

**Decision on Action and Application for Categorical Exclusion  
For Activities Associated with Oil and Gas Development  
Section 390, Energy Policy Act of 2005**

Pennaco Energy  
Brinkerhoff Additions POD  
WY-070-08-CX3-001 and 002  
Bureau of Land Management  
Buffalo Field Office

**Description of the Proposed Action**

Pennaco Energy (the operator) proposes to drill and complete the two Coal Bed Natural Gas (CBNG) wells listed below to produce Federal minerals in an addition to the Brinkerhoff POD. These wells are proposed within the Brinkerhoff POD boundary in areas that have been previously analyzed under the NEPA document EA WY-070-04-328 (approved 12-17-04).

	<b>Well Name</b>	<b>Well #</b>	<b>Qtr/Qtr</b>	<b>Sec</b>	<b>T</b>	<b>R</b>	<b>Lease #</b>	<b>CX #</b>
1	Brinkerhoff Add 1	5-8MZ/CR*	SWNW	8	57N	82W	WYW145646	001
2	Brinkerhoff Add 1	5-17MZ/CR	SWNW	17	57N	82W	WYW145648	002

The proposed action involves the following:

- Drilling of two CBNG wells to the following coal zones:

<b>Coal Zone</b>	<b>Depth Range, feet</b>
Smith	502 – 782
Lower Smith	602 – 682
Dietz 1	732 – 1020
Dietz 3	932 – 1219
Monarch	1032 – 1319
Carney	1192 – 1510

- Drilling and construction activities are anticipated to be initiated immediately upon approval. Drilling time per well is anticipated to be 3 days each. The APD will be valid for two years after the date of issuance according to Onshore Order #1 as updated May, 2007. Timing limitations in the form of COAs or agreements with the surface owners may impose longer temporal restrictions.
- Produced gas from these wells will be added to existing infrastructure developed for the Brinkerhoff POD.
- The produced water will be added to the existing water management system which consists of 25 existing impoundments (5 of which are off-channel pits) within the Tongue River watershed. The operator has obtained permits to discharge this water to full containment impoundments from the Wyoming Department of Environmental Quality (WDEQ) under the Wyoming Pollutant Discharge Elimination System (WYPDES). These permits (WYG390038, WYG390040, WY0051489, WY0051497, and WY0051705) include Federal and fee mineral produced water from the area.
- An existing unimproved and improved road network.

- An existing above ground power line network, constructed by a third party.
- An existing buried gas, water and power line network that the infrastructure for these wells will tie into. No new facilities will be constructed as a result of this action. This POD will add 0.23 miles of access road with pipeline corridor (0.98 acres of disturbance) and two well locations (0.31 acres disturbance each) to the original total short and long term disturbance for this POD for a total of 1.6 acres. The original POD disturbance was estimated to be 193.7 acres short term disturbance (182.9 acres long term disturbance) on 5 Federal leases.

### **Plan Conformance**

The proposed action is in conformance with the terms and the conditions of the Approved Resource Management Plan for the Public Lands Administered by the Bureau of Land Management, Buffalo Field Office (BFO), April 2001 and the PRB FEIS, as required by 43 CFR 1610.5

### **Plan of Operations**

The proposal is designed in conformance with all bureau standards and incorporates appropriate best management practices, required and designed mitigation measures determined to reduce the effects on the environment.

A surface use plan of operations describing all proposed surface-disturbing activities has been reviewed and is approved pursuant to Section 17 of the Mineral Leasing Act, as amended.

### **Compliance with the Energy Policy Act of 2005**

The proposed activity has been determined to be statutorily categorically excluded from NEPA documentation in accordance with Section 390 of the National Energy Policy Act of 2005.

The applicable Categorical Exclusion reference in Section 390 of the Energy Policy Act of 2005 is exclusion number (b)(3) which is *drilling an oil or gas well within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed such drilling as a reasonably foreseeable activity, so long as such plan or document was approved within 5 years prior to the date of spudding the well.*

The original Brinkerhoff POD Environmental Assessment (WY-070-04-328) was approved 12-17-04. This document has been reviewed and has been determined to consider potential environmental effects associated with the proposed activity at a site specific level.

### **Persons and Agencies Consulted**

Onsite inspections were conducted 10-19-07 by Roger Brinkerhoff - Landowner; Jeb Beachem, Chick McKay, Mike Barker, Dan Conley and Harry Kessner (Wm. Smith Eng.) – Pennaco Representatives; and Buck Damone and Kathy Brus – BLM.

The following table presents the changes as a result of the onsite:

Well Name	Well #	Qtr/Qtr	Sec	T	R	Lease #	Comments
Brinkerhoff	5-8-57-82 MZ/CR	SWNW	8	57	82	WYW145646	Moved well to the west to edge of irrigated field to avoid road and pad construction and excessive surface disturbance.
Brinkerhoff	5-17-57-82 MZ/CR	SWNW	17	57	82	WYW145648	Moved well to the south to avoid pad construction. Dropped designed road. Access and pipeline corridor will be along existing two track trail.

The following well was dropped at the onsite:

Well Name	Well #	Qtr/Qtr	Sec	T	R	Lease #	Comments
Brinkerhoff	13-12-57- 83 MZ/CR	SWSW	12	57	83	WYW145653	Access corridor and well location are situated in fragile erosive soils and coal outcrops. Bordering slopes are greater than 25%. Reclamation potential is non-existent to poor at the best. No acceptable alternative is available.

Subsequent to the onsite, Pennaco submitted a request to withdraw the 13-12 well from the proposal.

**Other Persons Consulted:**

Bylle Jo Newport, Legal Assistant  
 Jennifer Morton, Wildlife Biologist  
 G.L. "Buck" Damone – Archeologist  
 Gerald Queen – Geologist  
 Dave Chase – Petroleum Engineer  
 Kristine Phillips – Legal Instruments Examiner  
 Kathy Brus – Supervisory Natural Resource Specialist and Hydrologist  
 Casey Freise – Supervisory Natural Resource Specialist  
 Thomas Bills – Project Manager and NEPA Coordinator  
 Chris Hanson – Field Manager

**Cultural Resources**

Class III cultural resource inventory was conducted for the project prior to on-the-ground work (BFO # 070080011). Foothills Archaeological Consultants conducted a Class III cultural resource inventory following the Archeology and Historic Preservation, Secretary of the Interior's Standards and Guidelines (48CFR190) for the project. G.L. "Buck" Damone III, BLM Archeologist, reviewed the report for technical adequacy and compliance with Bureau of Land Management (BLM) standards, and determined it to be adequate.

There are no eligible sites within the APE of the proposed project. Following the Wyoming State Protocol Section VI (A)(1) the Bureau of Land Management electronically notified the Wyoming State Historic Preservation Officer (SHPO) on 11/16/07 that no historic properties exist within the APE.

### **Wildlife**

The Wildlife biologist has reviewed the sundry proposal and certified that the proposal combined with the Conditions of Approval from the Brinkerhoff POD (WY-070-04-328) are consistent with the Final Environmental Impact Statement (WY-070-02-065) and Endangered Species Act consultation (ES-6-WY-07-F012) from the Powder River Basin Oil and Gas Project.

### **Water Management**

The operator has submitted a comprehensive WMP for this project, which incorporates water management practices which were included in the previously approved PODs, monitoring of downstream impacts within the Coutant Creek watershed which is tributary to the Upper Tongue River watershed and commitment to comply with Wyoming State water laws and regulations. The operator has submitted additional information regarding the water management strategy for these wells, which incorporates the water management plan that was approved in the original Brinkerhoff POD.

These wells are predicted to produce 10 gpm per well. The original proposal estimated water production rates to be 20 gpm per well. The current production average for those existing wells is 4.5 gpm per well or 559 gpm for the field. Produced water from these proposed wells will increase the existing produced volume by only 3.6%. Historic production figures indicate that the water production rate in this area has declined over time, as is typical of coal bed natural gas production.

### **Groundwater**

The PRB FEIS predicts an infiltration rate of 39% to groundwater aquifers and coal zones in the Upper Tongue River drainage area (PRB FEIS pg 4-5). For this action, it may be assumed that a maximum of 7.8 gpm will infiltrate at or near the discharge points and impoundments (12.6 acre feet per year).

In the process of dewatering the coal zone to increase natural gas recovery rates, this project may have some effect on the static water level of wells in the area. There are existing permitted stock water wells in and around the project area. These wells produce from depths which range from 5 to 510 feet (177 feet average) depth for the stock and domestic wells compared to 502 feet to the shallowest Smith coal and 1510 feet to the deepest Carney Coal. As mitigation, the operator has offered water well agreements to holders of properly permitted domestic and stock wells within the circle of influence (½ mile of a federal CBNG producing well) of the proposed wells.

Adherence to the drilling plan, the setting of casing at appropriate depths, following safe remedial procedures in the event of casing failure, and utilizing proper cementing procedures will protect any potential fresh water aquifers above the target coal zone. This will ensure that ground water will not be adversely impacted by well drilling and completion operations.

### **Surface Water**

The water management strategy for the Brinkerhoff POD, as well as that proposed for the Brinkerhoff Addition 1 wells, is to fully contain the water produced in association with Federal minerals within existing impoundments. No water will be discharged to ephemeral drainages which are tributary to the Upper Tongue River.

The following table presents the predicted water quality for this area from the original POD and the existing water quality of a sample taken in 08-07 from a water discharge point within the POD boundary.

<b>Predicted Values</b>	<b>TDS, mg/l</b>	<b>SAR</b>	<b>EC, µmhos/cm</b>
Predicted Produced Water Quality – 2004 Original Brinkerhoff POD			
Dietz 1 Coal Zone	1,110	43.3	1,780
Dietz 2 Coal Zone	1,370	51.0	2,180
Dietz 3 Coal Zone	1,280	42.2	2,030
Monarch Coal Zone	1,360	46.0	2,140
Carney Coal Zone	1,680	43.9	2,700
AVERAGE	1,360	45.3	2,170
Water Quality – Commingled Sample 08-02-07	1,670	99.1	2,610

### Decision and Rationale on Action

I have decided to implement the approval the Brinkerhoff Additions 1 POD with the following Conditions of Approval (COAs):

1. The operator will comply with the Plans of Development and **all** the Conditions of Approval included in the original Brinkerhoff POD EA #WY-070-04-328 (approved 12-17-04)
2. Please contact Kathy Brus, Natural Resource Specialist, @ (307)684-1087, Bureau of Land Management, Buffalo, if there are any questions concerning these COAs.
3. If water would flow or pond next to the road, it will be diverted away from the road following the minimum spacing guidelines in the table below. This may be accomplished with cross-drains (culverts, water-bars, rolling dips) and lead-out (wing) ditches.

<b>Diversion Spacing for Water Flowing or Ponded next to Road (feet)</b>				
Soil Type	Road Grade 2-4%	Road Grade 5-8%	Road Grade 9-12%	Road Grade 13-16%
Highly erosive granitic or sandy	240	180	140	100
Intermediate erosive clay or clay/silt/sand	310	260	200	150
Low erosive shale or gravel	400	325	250	200

4. Onshore Order #1, as revised effective 05-07-07, requires that all operators certify to the Field Office in writing that they have supplied a copy of the Surface Use Plan to each of the private surface owners affected by the project. This self-certification must be received by this office before construction on the project begins.

Please note, effective 05-07-07, operators must supply a copy of the Surface Use Plan to each of the private surface owners prior to approval of the APD.

5. At a minimum, 4 inches of aggregate shall be placed where road grades exceed 8%.

The above COAs and/or terms and conditions provide justification for this decision and may not be segregated from project implementation without further NEPA review. In addition, I have reviewed the plan conformance statement and have determined that the proposed activity is in conformance with the applicable land use plan(s). Further, I have reviewed the proposal to ensure the appropriate exclusion category as described in Section 390 of the Energy Policy Act of

2005 has been correctly applied. It is my determination that no further environmental analysis is required.

The above described action must be completed by **11-26-2012**.

**Implementation Date**

This project will be implemented on or after the below date.

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Chris E. Hanson  
Field Manager

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Date

**Administrative Review or Appeal Opportunities**

This decision is subject to administrative review in accordance with 43 CFR 3165. Any request for administrative review of this decision 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.

**Contact Person**

For additional information concerning this decision, contact  
Kathy Brus, Supervisory Natural Resource Specialist  
BLM Buffalo Field Office  
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Buffalo, WY 82834  
(307)684-1087