

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

Recluse Double E POD
Storm Cat Energy
CX08-3-039 to 050
Bureau of Land Management
Buffalo Field Office

Description of the Proposed Action

Storm Cat Energy proposes to develop the expired Recluse Field Plan of Development (POD), now Recluse Double E POD. The Recluse Field POD (EA # 070-04-113) was approved on 04/02/2004 and involved the development of 9 CBNG wells and associated infrastructure. Pennaco permitted the POD in 2004 but subsequently allowed the APDs to expire. Storm Cat Energy acquired the project from Marathon/Pennaco, and will develop and operate the acreage. The resubmission of the POD includes 3 additional wells within the original project area for a total of 12 CBNG wells. The 3 new wells are highlighted in the table below.

The wells are located as follows:

Well Name	Well #	QTR	Sec.	T	R	Lease #	CX #
RECLUSE DOUBLE E OEDEKOVEN	05-CW-1	SWNW	1	55N	74W	WYW137912	39
RECLUSE DOUBLE E BARBE	01CW-2	NENE	2	55N	74W	WYW143960	40
RECLUSE DOUBLE E	03CW-2	NENW	2	55N	74W	WYW129531	41
RECLUSE DOUBLE E	05CW-2	SWNW	2	55N	74W	WYW143960	42
RECLUSE DOUBLE E BARBE	07CW-2	SWNE	2	55N	74W	WYW143960	43
RECLUSE DOUBLE E	11CW-2	NESW	2	55N	74W	WYW135219	44
RECLUSE DOUBLE E	13CW-2	SWSW	2	55N	74W	WYW135219	45
RECLUSE DOUBLE E	09CW-3	NESE	3	55N	74W	WYW143960	46
RECLUSE DOUBLE E	15CW-3	SWSE	3	55N	74W	WYW143960	47
RECLUSE DOUBLE E	03CW-11	NENW	11	55N	74W	WYW143960	48
RECLUSE DOUBLE E	05CW-11	SWNW	11	55N	74W	WYW143960	49
RECLUSE DOUBLE E	15CW-11	SWSE	11	55N	74W	WYW143960	50

The following wells were moved by Storm Cat Energy from the previously approved locations. A review of the expired POD did not reveal environmental concerns leading to Pennaco's original well locations. Storm Cat Energy moved the wells to locations that required the least amount of dirt work and provided the easiest access. All the well locations in the Recluse Double E POD were verified during the pre-approval onsite inspection on 12/13/2007.

Well Name	Well #	Original Location	New Location	Distance Total
RECLUSE DOUBLE E BARBE	01CW-2	760' FNL 507' FEL	1082' FNL 670' FEL	361ft

Well Name	Well #	Original Location	New Location	Distance Total
RECLUSE DOUBLE E	03CW-2	949' FNL 2117' FWL	1222' FNL 2112' FWL	273.05ft
RECLUSE DOUBLE E	05CW-2	2334' FNL 748' FWL	2346' FNL 694' FWL	55.32ft
RECLUSE DOUBLE E	11CW-2	1978' FSL 1982' FWL	1973' FSL 1938' FWL	44.28ft
RECLUSE DOUBLE E	13CW-2	584' FSL 655' FWL	619' FSL 672' FWL	39ft
RECLUSE DOUBLE E	09CW-3	1891' FSL 840' FEL	1763' FSL 1024' FEL	224ft
RECLUSE DOUBLE E	15CW-3	793' FSL 1959' FEL	716' FSL 1984' FEL	81ft
RECLUSE DOUBLE E	05CW-11	2063' FNL 170' FWL	2064' FNL 171' FWL	1.41ft

Of the 12 proposed well locations, 1 is located on a reclaimed conventional well pad, 9 can be drilled without a well pad being constructed, and 2 will require a 15 x 90 foot rig slot. Surface disturbance associated with the drilling of the 10 non-constructed locations (includes the reclaimed well site) would involve digging-out of rig wheel wells (for leveling drill rig on minor slopes), reserve pit construction (estimated approximate size of 24 x 12 x 8 feet), and compaction (from vehicles driving/parking at the drill site). Estimated disturbance associated with these 10 wells would involve approximately 0.31 acre/well (90 x 150 feet). The other 2 wells requiring rig slot construction would involve leveling an area of 15 x 90 feet with a maximum of 4 foot excavation depth. The work area will be approximately the same as the non-constructed locations, 0.31 acre/well. The total estimated disturbance for all 12 wells would be 3.72 acres.

Approximately 2.65 miles of improved roads would be constructed to provide access to various well locations. Approximately 1.16 miles of new and existing two-track/primitive roads would be utilized to access well sites. Approximately 0.68 miles of pipeline would be constructed outside of corridors (disturbance corridors involve the combining of 2 or more utility lines in a common trench, usually along access routes).

Water from CBM discharges will be stored in existing or to be constructed on-channel reservoirs. The POD resubmission includes 6 additional impoundments within the original project area for a total of 12 on-channel reservoirs. The 6 additional sites are highlighted in the table below.

IMPOUNDMENT Name / Number	Qtr/Qtr	Section	TWP	RNG	Status	Primary or Secondary Priority	Mineral Lease #
Bear Claw	SESW	2	55	74	Proposed	Primary	WYW135219
Lynde	NWNW	11	55	74	Existing	Primary	WYW143960
Millie	NENW	2	55	74	Existing	Primary	WYW129531
Gila Ridge	SWSW	2	55	74	Proposed	Primary	WYW135219
Thayer	NENW	3	55	74	Existing	Primary	Private
Watusi (Roadway)	NWNW	3	55	74	Existing	Primary	WYW129531
Double E 10-3 55-74	NWSE	3	55	74	Proposed	Primary	WYW143960

IMPOUNDMENT Name / Number	Qtr/Qtr	Section	TWP	RNG	Status	Primary or Secondary Priority	Mineral Lease #
Barbe 13-35 55-74	SWSW	35	55	74	Existing	Primary	WYW148158
Plateau	SWSW	34	56	74	Proposed	Secondary	Private
Snowy	NWNE	3	55	74	Existing	Secondary	Private
Double E 11-33 55-74	NESW	3	55	74	Proposed	Secondary	WYW143960
Barbe 8-2 55-74	NENE	2	55	74	Proposed	Secondary	WYW143960

Four reservoirs are considered secondary priority reservoirs. These facilities will only be utilized for produced water containment if first priority or “primary” water impoundments are insufficient for produced water management. The BLM requires bonding prior to approval for all primary reservoirs. If Storm Cat determines it requires the use of a secondary priority reservoir for produced water containment, a Sundry Notice along with proof of bond will be submitted to the BLM prior to the construction and/or use of the reservoir.

The following impoundments were previously approved for use in association with the water management strategy for the Recluse Field POD.

IMPOUNDMENT Name / Number	Qtr/Qtr	Section	TWP	RNG	Status	Mineral Lease #
Lynde	NWNW	11	55	74	Existing	WYW143960
Millie	NENW	2	55	74	Existing	WYW129531
Gila Ridge	SWSW	2	55	74	Proposed	WYW135219
Thayer	NENW	3	55	74	Existing	Private
Watusi (Roadway)	NWNW	3	55	74	Existing	WYW129531
Snowy	NWNE	3	55	74	Existing	Private

On February 6, 2008 the BLM received a bond rider which includes reclamation of the following water impoundment facilities in the Recluse Double E POD.

IMPOUNDMENT Name / Number	Qtr/Qtr	Sec	TWP	RNG	Priority	Status	Mineral Lease #
Lynde	NWNW	11	55	74	Primary	Existing	WYW143960
Millie	NENW	2	55	74	Primary	Existing	WYW129531
Gila Ridge	SWSW	2	55	74	Primary	Proposed	WYW135219
Double E 10-3 55-74	NESW	3	55	74	Primary	Proposed	WYW143960
Watusi (Roadway)	NWNW	3	55	74	Primary	Existing	WYW129531
Bear Claw	SESW	2	55	74	Primary	Proposed	WYW135219
Barbe 13-35 55-74*	SWSW	35	55	74	Primary	Existing	WYW148158

*The Barbe 13-35 Reservoir is bonded through the Wyoming Department of Environmental Quality (WDEQ).

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 environmental assessment for Pennaco's Recluse Field POD (EA # 070-04-113) was approved on 04/02/2004 and identifies the drilling of CBNG wells and installation of production infrastructure as reasonably foreseeable. This document has been reviewed and has been determined to consider potential environmental effects associated with the development of federal fluid minerals at a site specific level.

Persons and Agencies Consulted

Michelle Lofgren, Legal Assistant
Casey Freise, Supervisory Natural Resource Specialist and Hydrologist
Karen Klaahsen, Legal Instruments Examiner
BJ Earle, Archaeologist
Bill Ostheimer, Wildlife Biologist
Thomas Bills, NEPA Coordinator
Chris E. Hanson, Field Manager

Cultural Resources:

Previously reviewed and accepted Class III cultural resource inventories (BFO # 70030145, Foothills for Marathon: Recluse CBM POD, and #70070126, Quality Services for Storm Cat: Recluse Double E CBM POD) adequately covered the proposed project area. No National Register eligible cultural resources are in the area of potential effect. Only one historic site, a stone-lined well, and six isolates or isolated resource finds (IRFs) were located in the project area.

Site	National Register Eligibility	Project Effects
48 CA 6573	Not eligible	No HP Affected

Site	National Register Eligibility	Project Effects
Prehistoric isolate	Not eligible	No effect
Prehistoric isolate	Not eligible	No HP Affected
Prehistoric isolate	Not eligible	No effect
Prehistoric isolate	Not eligible	No HP Affected
Prehistoric isolate	Not eligible	No HP Affected
Prehistoric IRF	Not eligible	No HP Affected

On 12/17/2007, BJ Earle, BLM Archaeologist, electronically notified the Wyoming State Historic Preservation Office (SHPO) following section VI(A)(1) of the Wyoming State Protocol, of a finding of no effect for the proposed project (DBU_WY_2007_2911).

The project area is mapped as Tertiary Wasatch, with a Paleontological sensitivity rating of 3, a moderate ranking. No Paleontological localities are reported in the area, probably due to lack of research. No resources of interest to Native American cultural groups or Traditional Cultural Properties are known to occur in the project area

Wildlife:

The proposed project effects were analyzed in the Recluse Field POD (EA # 070-04-113, approved 04/02/2004). The original “no effect” determination for Ute ladies’-tresses orchid has been changed to “may effect, not likely to adversely affect.” Suitable habitat exists and will be surveyed for the species prior to any disturbance. The effects determinations for other species have not changed.

Greater sage-grouse habitat will be impacted by the proposed development. The project area is four miles from the nearest known lek. Based on BLM’s review at the onsite, of the proposed impacts, the 11-3 reservoir location and access to the 5CW-2 well contain high quality sage-grouse nesting habitat. In addition, the Bear Claw Reservoir location represents high quality brood rearing habitat. To minimize these impacts, the access to well 5CW-2 will be limited in width, and both the Double E 11-3 and the Bear Claw reservoir locations will not be approved. Should Storm Cat wish to request another reservoir location, then a sundry will be required.

The wildlife biologist has reviewed the proposal and determined that, with applied Conditions of Approval, the project is consistent with the Recluse Field POD (EA # 070-04-113, approved 04/02/2004), the Final Environmental Impact Statement (WY-070-02-065) and the programmatic biological opinion (WY-07-F0075) from the Powder River Basin Oil and Gas Project.

Recreation:

A portion of the project area is currently designated by the Wyoming Game and Fish as a Walk-in hunting area for antelope and deer. In order to help preserve the Walk-in hunting experience, POD construction within the walk-in area will be prohibited during the hunting seasons, and production traffic will be limited.

Decision and Rationale on Action

I have decided to approve the resubmission of the Recluse Field POD, now Recluse Double E POD comprised of the following 12 Applications for Permit to Drill (APDs):

Well Name	Well #	QTR	Sec.	T	R	Lease #	CX #
RECLUSE DOUBLE E OEDEKOVEN	05-CW-1	SWNW	1	55N	74W	WYW137912	39

Well Name	Well #	QTR	Sec.	T	R	Lease #	CX #
RECLUSE DOUBLE E BARBE	01CW-2	NENE	2	55N	74W	WYW143960	40
RECLUSE DOUBLE E	03CW-2	NENW	2	55N	74W	WYW129531	41
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RECLUSE DOUBLE E	13CW-2	SWSW	2	55N	74W	WYW135219	45
RECLUSE DOUBLE E	09CW-3	NESE	3	55N	74W	WYW143960	46
RECLUSE DOUBLE E	15CW-3	SWSE	3	55N	74W	WYW143960	47
RECLUSE DOUBLE E	03CW-11	NENW	11	55N	74W	WYW143960	48
RECLUSE DOUBLE E	05CW-11	SWNW	11	55N	74W	WYW143960	49
RECLUSE DOUBLE E	15CW-11	SWSE	11	55N	74W	WYW143960	50

The following impoundments were inspected and approved for use in association with the water management strategy for the POD.

IMPOUNDMENT Name / Number	Qtr/Qtr	Sec	TWP	RNG	Priority	Status	Mineral Lease #
Lynde	NWNW	11	55	74	Primary	Existing	WYW143960
Millie	NENW	2	55	74	Primary	Existing	WYW129531
Gila Ridge	SWSW	2	55	74	Primary	Proposed	WYW135219
Double E 10-3 55-74	NESW	3	55	74	Primary	Proposed	WYW143960
Watusi (Roadway)	NWNW	3	55	74	Primary	Existing	WYW129531
Barbe 13-35 55-74	SWSW	35	55	74	Primary	Existing	WYW148158

The Recluse Double E POD will be implemented with the following Conditions of Approval (COAs):

I Programmatic mitigation measures identified in the PRB FEIS ROD

Programmatic mitigation measures are those, determined through analysis, which may be appropriate to apply at the time of APD approval if site specific conditions warrant. These mitigation measures can be applied by BLM, as determined necessary at the site-specific NEPA APD stage, as COAs and will be in addition to stipulations applied at the time of lease issuance and any standard COA.

Groundwater

1. In order to address the potential impacts from infiltration on shallow ground water, the Wyoming DEQ has developed a guidance document, "Compliance Monitoring and Siting Requirements for Unlined Coalbed Methane Produced Water Impoundments" which was approved September, 2006. For WYPDES permits received by DEQ after the effective date, the BLM requires that operators comply with the current approved DEQ compliance monitoring guidance document prior to discharge of federally-produced water into newly constructed or upgraded impoundments.

Surface Water

1. Channel crossings by pipelines will be constructed so that the pipe is buried at least four feet below the channel bottom.

2. Low water crossings will be constructed at original streambed elevation in a manner that will prevent any blockage or restriction of the existing channel. Material removed will be stockpiled for use in reclamation of the crossings.
3. The operator will supply a copy of the complete approved SW-4, SW-3, or SW-CBNG permits to BLM as they are issued by WSEO for impoundments.

Soils

1. The Companies, on a case by case basis depending upon water and soil characteristics, will test sediments deposited in impoundments before reclaiming the impoundments. Tests will include the standard suite of cations, ions, and nutrients that will be monitored in surface water testing and any trace metals found in the CBNG discharges at concentrations exceeding detectable limits.

Wetland/Riparian

1. No waste material will be deposited below high water lines in riparian areas, flood plains, or in natural drainage ways.
2. The lower edge of soil or other material stockpiles will be located outside the active floodplain.
3. Disturbed channels will be re-shaped to their approximate original configuration or stable geomorphologic configuration and properly stabilized.
4. Reclamation of disturbed wetland/riparian areas will begin immediately after project activities are complete.

Wildlife

1. The Companies will locate facilities so that noise from the facilities at any nearby sage grouse or sharp-tailed grouse display grounds does not exceed 49 decibels (10 dBA above background noise) at the display ground.
2. All stock tanks shall include a ramp to enable trapped small birds and mammals to escape. See Idaho BLM Technical Bulletin 89-4 entitled Wildlife Watering and Escape Ramps on Livestock Water Developments: Suggestions and Recommendations.

Visual Resources

1. The Companies will mount lights at compressor stations and other facilities on a pole or building and direct them downward to illuminate key areas within the facility while minimizing the amount of light projected outside the facility.

Air Quality

1. During construction, emissions of particulate matter from well pad and resource road construction will be minimized by application of water, or other dust suppressants, with at least 50 percent control efficiency. Roads and well locations constructed on soils susceptible to wind erosion could be appropriately surfaced or otherwise stabilized to reduce the amount of fugitive dust generated by traffic or other activities, and dust inhibitors (surfacing materials, non-saline dust suppressants, and water) could be used as necessary on unpaved collector, local and resource roads that present a fugitive dust problem. The use of chemical dust suppressants on BLM surface will require prior approval from the BLM authorized officer.

II Site Specific Conditions of Approval

General

1. All the proposed well locations in the Recluse Double E POD must be spudded by 04/02/2009. For Wells not spudded by 04/02/2009 Storm Cat is to cease all operations related to preparing to drill the wells.
2. All spot upgrades and impoundments will be completely slope staked for the pre-construction meeting.
3. All Storm Cat Energy representatives and contractors will have a copy of the approved POD map and conditions of approval with them at all times while conducting activities within the Recluse Double E POD project area.
4. Please contact Julian Serafin – Natural Resource Specialist, @ (307) 684-1043, Bureau of Land Management, Buffalo Field Office, if there are any questions concerning surface use COAs.

Surface Use

1. All permanent above-ground structures (e.g., production equipment, tanks, etc.) not subject to safety requirements will be painted to blend with the natural color of the landscape. The paint used will be a color which simulates “Standard Environmental Colors.” The color selected for the Recluse Double E POD is Covert Green, 18-0617 TPX.
2. Interim Reclamation of disturbed areas will adhere to the following guidance (as per the Wyoming Policy on Reclamation (IM WY-90-231):
 - A. The reclaimed area shall be stable and exhibit none of the following characteristics:
 - i. Large rills or gullies.
 - ii. Perceptible soil movement or head cutting in drainages.
 - iii. Slope instability on, or adjacent to, the reclaimed area in question.
 - B. The soil surface must be stable and have adequate surface roughness to reduce runoff and capture rainfall and snow melt. Additional short-term measures, such as the application of mulch, shall be used to reduce surface soil movement.
 - C. Vegetation canopy cover (on unforested sites), production and species diversity (including shrubs) shall approximate the surrounding undisturbed area. The vegetation shall stabilize the site and support the planned post disturbance land use, provide for natural plant community succession and development, and be capable of renewing itself.

This shall be demonstrated by:

 - i. Successful onsite establishment of species included in the planting mixture or other desirable species.
 - ii. Evidence of vegetation reproduction, either spreading by rhizomatous species or seed production.
 - D. The reclaimed landscape shall have characteristics that approximate the visual quality of the adjacent area with regard to location, scale, shape, color and orientation of major landscape features and meet the needs of the planned post disturbance land use.
3. All topsoil removed during construction activities will be respread for interim reclamation success.
4. The disturbance areas identified below have limited reclamation potential that shall be stabilized in a manner which eliminates accelerated erosion until a self-perpetuating native plant community has stabilized the site in accordance with the Wyoming Reclamation Policy. Stabilization efforts shall be completed within **30 days of the initiation of construction activities**. Stabilization efforts may

include mulching, matting, soil amendments, geotextiles, etc.

- Wells: 09CW-3 and 01CW-2.
 - Road/Pipeline section(s): spot upgrade/access road to 09CW-3; pipeline/utility corridor (downslope and upslope sections) between 05CW-1 and 01CW-2; and, Spot upgrades Ref. #1, 2, and 3.
5. The gully (erosion feature) on the upper half of the old access road to well location 01CW-2 will be remediated to avoid further erosion. Remediation of this erosion feature will be completed within **1 year of the initiation of construction activities**.
 6. Utility corridors will be expediently reclaimed following construction and maintained in a manner avoiding tire rutting, settling and erosion.
 7. Reserve pits will be lined at the following locations: **Recluse Double E 09CW-3**. The Recluse Double E 13CW-2 location will be lined if coarse/sandy materials are encountered.
 8. The operator will drill seed on the contour to a depth of 0.5 inch, followed by cultipaction to compact the seedbed, preventing soil and seed losses. To maintain quality and purity, the current years tested, certified seed with a minimum germination rate of 80% and a minimum purity of 90% will be used. In lieu of a different specific mix desired by the surface owner, use the following:

Species	% in Mix	Lbs PLS*
<i>Western Wheatgrass</i> (Pascopyrum smithii)/or <i>Thickspike Wheatgrass</i> (Elymus lanceolatus ssp. lanceolatus)	30	3.6
<i>Bluebunch Wheatgrass</i> (Pseudoroegneria spicata ssp. Spicata)	10	1.2
<i>Green needlegrass</i> (Nassella viridula)	25	3.0
<i>Slender Wheatgrass</i> (Elymus trachycaulus ssp. trachycaulus)	20	2.4
<i>Prairie coneflower</i> (Ratibida columnifera)	5	0.6
<i>White or purple prairie clover</i> (Dalea candidum, purpureum)	5	0.6
<i>Rocky Mountain beeplant</i> (Cleome serrulata)	5	0.6
Totals	100%	12 lbs/acre

*Pure Live Seed

*Northern Plains adapted species

*Slopes too steep for machinery may be hand broadcast and raked with twice the specified amount of seed. Complete fall seeding after September 15 and prior to prolonged ground frost. To be effective, complete spring seeding after the frost has left the ground and prior to May 15.

9. The culvert locations will be staked prior to construction. The culvert invert grade and finished road grade will be clearly indicated on the stakes. Culverts will be installed on natural ground, or on a designed flow line of a ditch. The minimum cover over culverts will be 12" or one-half the diameter

whichever is greater. Drainage laterals in the form of culverts or water bars shall be placed according to the following spacing:

Grade	Drainage Spacing
2-4%	310 ft
5-8%	260 ft
9-12%	200 ft

10. Provide 4" of aggregate where grades exceed 8% for stability and erosion prevention (Spot Upgrade Ref. #1).
11. Proposed improved access roads and/or spot upgrades with utility corridor will be allowed a maximum disturbance width of 50ft.
12. To minimize the impacts on sage grouse habitat, the access road to well location 05CW-11 will be allowed a maximum working width of 40ft with a blading/clearing width not to exceed 30ft.
13. To minimize the impacts on sage grouse habitat, the access road to well location 05CW-2 will be allowed a maximum working width of 40ft with a blading/clearing width not to exceed 30ft.
14. To minimize the impacts on sage grouse habitat, the operator will rotate and/or move the drilling equipment/infrastructure on well location 05CW-11 to avoid disturbance of adjacent sagebrush.

Wildlife

1. Protocol surveys for Ute Ladies'-tresses orchid shall be completed in suitable habitat prior to disturbance of that habitat. Those areas requiring surveys are as follows: Utility pipeline crossing in SWSW Section 35 T56N, R74W and the pipeline in Lynde Draw SWSE Section 11 T55N, R74W.
2. The following conditions will minimize impacts to raptors:
 - a. No surface disturbing activity shall occur within ½ mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey for the current breeding season. This affects the following infrastructure:

<i>Township/Range</i>	<i>Section</i>	<i>Infrastructure</i>
55/74	1	<ul style="list-style-type: none"> • Wells, 5CW-1 and their associated infrastructure. • The proposed pipeline between the 1CW-2 and 5CW-1 wells. • The proposed discharge 008 and reservoir.
55/74	2	<ul style="list-style-type: none"> • Wells 1CW-2, 3CW-2, 7CW-2, and associated infrastructure. • Discharge 007 and reservoir.
55/74	11	<ul style="list-style-type: none"> • Well 15CW-11

- b. Surveys to document nest occupancy for all nests within the project area shall be conducted by a biologist following BLM protocol, between April 15 and June 30. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface disturbing activities. Surveys outside this window may not depict nesting activity. If a survey identifies active raptor nests, a ½ mile timing buffer will be implemented. The timing buffer restricts surface disturbing activities within ½ mile of occupied raptor nests from February 1 to July 31.
 - c. Nest productivity checks for nests identified in the 12/05/2007 wildlife report shall be completed for the first five years following project completion. The productivity checks shall be conducted no earlier than June 1 or later than June 30 and any evidence of nesting success

or production shall be recorded. Survey results will be submitted to a Buffalo BLM biologist in writing no later than July 31 of each survey year.

3. Sage-brush mowing will be limited to 30 feet for the well access roads, and minimized at the well site for the following locations: 5CW-2, 5CW-11.
4. No drilling or construction activities shall take place during the walk-in hunting season (as defined by Wyoming Game and Fish) in those areas of the POD that are incorporated in the walk-in area as defined in the yearly Wyoming Game and Fish Walk-in Atlas. Metering and maintenance activities should be minimized during this period and scheduled for mid-day.

Water Management

1. Wildlife escape ramps are required on all the tire tanks in Recluse Double E POD.
2. All primary proposed reservoirs need to be staked for the preconstruction meeting and prior to construction.

III Standard Conditions of Approval

A. General

1. If any cultural values [sites, artifacts, human remains (Appendix L FEIS)] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. The authorized officer will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized BLM officer (AO). Within five working days the AO will inform the operator as to:
 - whether the materials appear eligible for the National Register of Historic Places;
 - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
 - a time-frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.
2. If paleontological resources, either large or conspicuous, and/or a significant scientific value are discovered during construction, the find will be reported to the Authorized Officer immediately. Construction will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of

- significant scientific interest discovered during the operation.
3. The operator shall restrict travel on unimproved two-track roads during periods of inclement weather or spring thaw when the possibility exists for excessive surface resource damage (e.g., rutting in excess of 4-inches, travel outside two-track roadway, etc.).
 4. The first producing well drilled to each targeted coal zone will be designated as the POD “Reference Well”. Reference wells will not be required for PODs within a 6 mile radius of the first reference well designated by the operator, nor for co-mingled coal zones. The designated reference well must be equipped to be sampled at the well head. A reference well sample will be collected from the wellhead and submitted for analysis; using the list of analytes identified in WDEQ WYPDES Application for Permit to Surface Discharge Produced Water from CBM New Discharges, Renewals, or Major Modifications, within 30 to 60 days of initial water production. Results of the analysis will be submitted to the BFO-BLM authorized Officer as they become available.
 5. By November 1 each year, companies will provide georeferenced spatial data depicting as-built locations of all facilities, wells, roads, pipelines, power lines, reservoirs, discharge points, and other related facilities to the BLM for all PODs where construction and development have been completed.
 6. If any dead or injured threatened, endangered, proposed, or candidate species is located during construction or operation, the U.S. Fish and Wildlife Service’s Wyoming Field Office (307-772-2374), their law enforcement office (307-261-6365), and the BLM Buffalo Field Office (307-684-1100) shall be notified within 24 hours. If any dead or injured sensitive species is located during construction or operation, the BLM Buffalo Field Office (307-684-1100) shall be notified within 24 hours.
 7. Wildlife species are dynamic and new individuals may have moved into the Recluse Double E POD area after the initial wildlife surveys were completed. The Record of Decision for the PRB FEIS includes a programmatic mitigation measure that states, “The companies will conduct clearance surveys for threatened and endangered or other special-concern species at the optimum time”. The measure requires companies to coordinate with the BLM before November 1 annually to review the potential for disturbance and to agree on inventory parameters. Should this project not be completed by January 15, and surface disturbance is planned for that year, a Storm Cat Energy company representative will coordinate with the BLM to discuss required surveys.
 8. All other conservation measures and terms and conditions identified in the Powder River Basin Oil and Gas Project Biological Opinion (WY07F0075) shall be complied with.
 9. If an undocumented raptor nest is located during project construction or operation, the Buffalo Field Office (307-684-1100) shall be notified within 24 hours.
 10. **All contractors will have a copy of the pod map and conditions of approval with them at all times.**

B. Construction

1. A pre-construction field meeting shall be conducted prior to beginning any dirt work approved under this POD. The operator shall contact the BLM Authorized Officer, Julian Serafin – NRS @ (307) 684-1043 at least 4-days prior to beginning operations so that the meeting can be scheduled. The operator is responsible for having all contractors present (dirt contractors, drilling contractor, pipeline contractor, project oversight personnel, etc.)

- including the overall field operations superintendent, and for providing all contractors copies of the approved POD, project map and BLM Conditions of Approval pertinent to the work that each will be doing.
2. The operator will limit vegetation removal and the degree of surface disturbance wherever possible. Where surface disturbance cannot be avoided, all practicable measures will be utilized to minimize erosion and stabilize disturbed soils.
 3. Construction and drilling activity will not be conducted using frozen or saturated soil material during periods when watershed damage or excessive rutting is likely to occur.
 4. Remove all available topsoil (depths vary from 4 inches on ridges to 12+ inches in bottoms) from constructed well locations including areas of cut and fill, and stockpile at the site. Topsoil will also be salvaged for use in reclamation on all other areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. **Any topsoil stockpiled for one year or longer will be signed and stabilized with annual ryegrass or other suitable cover crop.**
 5. The operator will not push soil material and overburden over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved without creating additional undue surface disturbance and where it does not impede watershed and drainage flows.
 6. Maintain a minimum 20-foot undisturbed vegetative border between toe-of-fill of pad and/or pit areas and the edge of adjacent drainages, unless otherwise directed by the BLM Authorized Officer.
 7. With the overall objective of minimizing surface disturbance and retaining land stability and productivity, the operator shall utilize equipment that is appropriate to the scope and scale of work being done for roads and well pads/slots (utilize equipment no larger than needed for the job).
 8. To minimize electrocution potential to raptors, all overhead electrical power lines will be constructed to Avian Power Line Interaction Committee (1996) standards and additional standards identified in the PRB FEIS Biological Opinion (Volume 3, Appendix K, page 43).
 9. The operator shall utilize wheel trenchers or ditchers to construct all pipeline trenches, except where extreme topography or other environmental factors preclude their use.
 10. Reserve pits will be adequately fenced during and after drilling operations until pit is reclaimed so as to effectively keep out wildlife and livestock. Adequate fencing, in lieu of more stringent requirements by the surface owner, is defined as follows:
 - Construction materials will consist of steel or wood posts. Three or four strand wire (smooth or barbed) fence or hog panel (16-foot length by 50-inch height) or plastic snow fence must be used with connectors such as fence staples, quick-connect clips, hog rings, hose clamps, twisted wire, etc. Electric fences will not be allowed.
 - Construction standards: Posts shall be firmly set in ground. If wire is used, it must be taut and evenly spaced, from ground level to top wire, to effectively keep out animals. Hog panels must be tied securely into posts and one another using fence staples, clamps, etc. Plastic snow fencing must be taut and sturdy. Fence must be at least 2-feet from edge of pit. 3 sides fenced before beginning drilling, the fourth side fenced immediately upon completion of drilling and prior to rig release. Fence must be left up and maintained in adequate condition until pit is closed.
 11. The reserve pit will be oriented to prevent collection of surface runoff. After the drilling rig is

- removed, the operator may need to construct a trench on the uphill side of the reserve pit to divert surface drainage around it. If constructed, the trench will be left intact until the pit is closed.
12. The reserve pit will be lined with an impermeable liner if permeable subsurface material is encountered. An impermeable liner is any liner having a permeability less than 10^{-7} cm/sec. The liner will be installed so that it will not leak and will be chemically compatible with all substances that may be put in the pit. Liners made of any man-made synthetic material will be of sufficient strength and thickness to withstand normal installation and pit use. In gravelly or rocky soils, a suitable bedding material such as sand will be used prior to installing the liner.
 13. The reserve pit will be constructed so that at least half of its total volume is in solid cut material (below natural ground level).
 14. Culverts will be placed on channel bottoms on firm, uniform beds, which have been shaped to accept them, and aligned parallel to the channel to minimize erosion. Backfill will be thoroughly compacted.
 15. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.
 16. Construction and other project-related traffic will be restricted to approved routes. Cross-country vehicle travel will not be allowed.
 17. Maximum design speed on all operator-constructed and maintained roads will not exceed 25 miles per hour.
 18. Pipeline construction shall not block nor change the natural course of any drainage. Pipelines shall cross perpendicular to drainages. Pipelines shall not be run parallel in drainage bottoms. Suspended pipelines shall provide adequate clearance for maximum runoff.
 19. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.
 20. During construction, emissions of particulate matter from well pad and road construction would be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on unpaved roads that present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.
 21. Operators are required to obtain a National Pollution Discharge Elimination System (NPDES) Storm Water Permit from the Wyoming DEQ for any projects that disturb five or more acres (changing to one acre in March 2005). This general construction storm water permit must be obtained from WDEQ prior to any surface disturbing activities and can be obtained by following directions on the WDEQ website at <http://deq.state.wy.us>. Further information can be obtained by contacting Barb Sahl at (307) 777-7570.
 22. The operator shall submit a Sundry Notice (Form 3160-5) to BLM for approval prior to construction of any new surface disturbing activities that are not specifically addressed in the approved APD or POD Surface Use Plan.
 23. Weed educational material will be reviewed with operators during pre-construction on-site meetings with operators, subcontractors, and landowners and will also be attached to approved APDs and PODs.
 24. Companies will contact the counties to pursue development of maintenance agreements to

ensure county roads are adequately maintained for the projected increase in use.

C. Operations/Maintenance

1. The operator shall complete coal bed natural gas wells (case, cement and under ream) as soon as possible, but no later than 30 days after drilling operations, unless an extension is given by the BLM Authorized Officer.
2. If in the process of air drilling the wells there is a need to utilize mud, all circulating fluids will be contained either in an approved pit or in an aboveground containment tank. The pit or containment tank will be large enough to safely contain the capacity of all expected fluids without danger of overflow. Fluid and cuttings will not be squeezed out of the pit, and the pit will be reclaimed in an expedient manner.
3. Confine all equipment and vehicles to the access road(s), pad(s), and area(s) specified in the approved APD or POD.
4. All waste, other than human waste and drilling fluids, will be contained in a portable trash cage. This waste will be transported to a State approved waste disposal site immediately upon completion of drilling operations. No trash or empty barrels will be placed in the reserve pit or buried on location. All state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.
5. Rat and mouse holes shall be filled and compacted from the bottom to the top immediately upon release of the drilling rig from the location.
6. The operator will be responsible for prevention and control of noxious weeds and weeds of concern on all areas of surface disturbance associated with this project (well locations, roads, water management facilities, etc.) Use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of Interior. Prior to the use of pesticides on public land, the holder shall obtain from the BLM authorized officer written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the authorized officer to such use.
7. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.
8. The operator and their contractors shall ensure that all use, production, storage, transport and disposal of hazardous and extremely hazardous materials associated with the drilling, completion and production of these wells will be in accordance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines. All project-related activities involving hazardous materials will be conducted in a manner to minimize potential environmental impacts. In accordance with OSHA requirements, a file will be maintained onsite containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds and/or substances which are used in the course of construction, drilling, completion and production operations.
9. Produced fluids shall be put in test tanks on location during completion work. Produced water will be put in the reserve pit during completion work per Onshore Order #7.
10. The only fluids/waste materials which are authorized to go into the reserve pit are RCRA exempt exploration and production wastes. These include:
 - drilling muds & cuttings
 - rigwash

- excess cement and certain completion & stimulation fluids defined by EPA as exempt

It does not include drilling rig waste, such as:

- spent hydraulic fluids
- used engine oil
- used oil filter
- empty cement, drilling mud, or other product sacks
- empty paint, pipe dope, chemical or other product containers
- excess chemicals or chemical rinsate

Any evidence of non-exempt wastes being put into the reserve pit may result in the BLM Authorized Officer requiring specific testing and closure requirements.

11. Reserve pits will be closed as soon as possible, but no later than 90 days from time of drilling/well completion, unless the BLM Authorized Officer gives an extension. Squeezing of pit fluids and cuttings is prohibited. Pits must be dry of fluids or they must be removed via vac-truck or other environmentally acceptable method prior to backfilling, re-contouring and replacement of topsoil. Mud and cuttings left in pit must be buried at least 3-feet below re-contoured grade. The operator will be responsible for re-contouring any subsidence areas that develop from closing a pit before it is sufficiently dry.
12. Operators are advised that prior to installation of any oil and gas well production equipment which has the potential to emit air contaminants, the owner or operator of the equipment must notify the Wyoming Department of Environmental Quality, Air Quality Division (phone 307-777-7391) to determine permit requirements. Examples of pertinent well production equipment include fuel-fired equipment (e.g., diesel generators), separators, storage tanks, engines and dehydrators.
13. If this well is drilled during the fire season (June-October), the operator shall institute all necessary precautions to ensure that fire hazard is minimized, including but not limited to mowing vegetation on the access route(s) and well location(s), keeping fire fighting equipment readily available when drilling, etc.

D. Dry Hole/Reclamation

1. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc will be expediently reclaimed and reseeded in accordance with the surface use plan and any pertinent site-specific COAs.
2. Disturbed lands will be re-contoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds.
3. The fluids and mud must be dry in the reserve pit before re-contouring pit area. The operator will be responsible for re-contouring of any subsidence areas that develop from closing a pit before it is completely dry. The plastic pit liner (if any) will be cut off below grade and properly disposed of at a state authorized landfill before beginning to re-contour the site.
4. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling platform and access road on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.
5. Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking to a depth of 4-to-6 inches following the contour.

6. Phased reclamation plans will be submitted to BLM for approval prior to individual POD facility abandonment via a Notice of Intent (NOI) Sundry Notice. Individual facilities, such as well locations, pipelines, discharge points, impoundments, etc. need to be addressed in these plans as they are no longer needed. Individual items that will need to be addressed in reclamation plans include:
 - Pit closure (Close ASAP after suitably dry, but no later than 90 days from time of drilling unless an extension is given by BLM Authorized Officer.) BLM may require closure prior to 90 days in some cases due to land use or environmental concerns.
 - Configuration of reshaped topography, drainage systems, and other surface manipulations
 - Waste disposal
 - Revegetation methods, including specific seed mix (pounds pure live seed/acre) and soil treatments (seedbed preparation, fertilization, mulching, etc.). On private surface, the landowner should be consulted for the specific seed mix.
 - Other practices that will be used to reclaim and stabilize all disturbed areas, such as water bars, erosion fabric, hydro-mulching, etc.
 - An estimate of the timetables for beginning and completing various reclamation operations relative to weather and local land uses.
 - Methods and measures that will be used to control noxious weeds, addressing both ingress and egress to the individual well or POD.
 - Decommissioning/removal of all surface facilities
 - Closure and reclamation of areas utilized or impacted by produced CBM water, including discharge points, reservoirs, off-channel pits, land application areas, livestock/wildlife watering facilities, surface discharge stream channels, etc
7. BLM will not release the performance bond until all disturbed areas associated with the APD/POD have been successfully revegetated (evaluation will be made after the second complete growing season) and has met all other reclamation goals of the surface owner and surface management agency.
8. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.
9. For performance bond release approval, a Final Abandonment Notice (with a surface owner release letter on split-estate) must be submitted prior to a final abandonment evaluation by BLM.
10. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
11. Any mulch utilized for reclamation needs to be certified weed free.
12. Waterbars are to be constructed at least one (1) foot deep, on the contour with approximately two (2) feet of drop per 100 feet of waterbar to ensure drainage, and extended into established vegetation. All waterbars are to be constructed with the berm on the downhill side to prevent the soft material from silting in the trench. The initial waterbar should be constructed at the top of the backslope. Subsequent waterbars should follow the following general spacing guidelines:

Slope (percent)	Spacing Interval (feet)
< 2	200
2 - 4	100
4 - 5	75
> 5	50

E. Producing Well

1. Landscape those areas not required for production to the surrounding topography as soon as possible. The fluids and mud must be dry in the reserve pit before re-contouring pit area. The operator will be responsible for re-contouring and reseeded of any subsidence areas that develop from closing a pit before it is completely dry.
2. Any spilled or leaked oil, produced water or treatment chemicals must be reported in accordance with NTL-3A and immediately cleaned up in accordance with BLM requirements. This includes clean-up and proper disposition of soils contaminated as a result of such spills/leaks.
3. Distribute stockpiled topsoil evenly over those areas not required for production and reseed as recommended.
4. Upgrade and maintain access roads and drainage control (e.g., culverts, drainage dips, ditching, crowning, surfacing, etc.) as necessary and as directed by the BLM Authorized Officer to prevent soil erosion and accommodate safe, environmentally-sound access.
5. Prior to construction of production facilities not specifically addressed in the APD/POD, the operator shall submit a Sundry Notice to the BLM Authorized Officer for approval.
6. If not already required prior to constructing and drilling the well location, the operator shall immediately upgrade the entire access road to BLM standards (including topsoiling, crowning, ditching, drainage culverts, surfacing, etc.) to ensure safe, environmentally-sound, year-round access. This requirement does not supercede or apply where specific road requirements are addressed in the APD/POD surface use plan (e.g., two track road, spot upgrade, etc.)
7. Waterbars shall be installed on all reclaimed pipeline corridors per the guidelines in D #12.

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.

All the proposed well locations in the Recluse Double E POD must be spudded by 04/02/2009.

Implementation Date

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

Chris E. Hanson
Field Manager

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

Julian Serafin
Natural Resources Specialist
BLM – Buffalo Field Office
1425 Fort Street
Buffalo, WY 82834
(307) 684-1043