**CONDITIONS OF APPROVAL FOR THE APPLICATION FOR PERMIT TO DRILL**

POD Name: **Culp Draw Federal POD/Hartzog Draw Federal POD**
Operator: **Williams Production RMT Company**

Field Office: Buffalo Field Office
Address: 1425 Fort Street
Buffalo, Wyoming 82834

Office Telephone Number: 307-684-1100

**List of Wells:**

**Culp Draw Federal POD Wells**

| | Well Name | Well # | QTR/QTR | Sec | TWP | RNG | Lease |
|---|---|---|---|---|---|---|---|
| 1 | CULP DRAW R CHRISTENSEN | 23-4* | NESW | 4 | 45N | 76W | WYW89855 |
| 2 | CULP DRAW R CHRISTENSEN | 34-4 | SWSE | 4 | 45N | 76W | WYW145593 |
| 3 | CULP DRAW R CHRISTENSEN | 23-7 | NESW | 7 | 45N | 76W | WYW145594 |
| 4 | CULP DRAW R CHRISTENSEN | 12-9 | SWNW | 9 | 45N | 76W | WYW21220 |
| 5 | CULP DRAW R CHRISTENSEN | 13-9 | NWSW | 9 | 45N | 76W | WYW21220 |
| 6 | CULP DRAW R CHRISTENSEN | 21-9 | NENW | 9 | 45N | 76W | WYW21220 |
| 7 | CULP DRAW R CHRISTENSEN | 32-9 | SWNE | 9 | 45N | 76W | WYW145594 |
| 8 | CULP DRAW R CHRISTENSEN | 34-9 | SWSE | 9 | 45N | 76W | WYW89855 |
| 9 | CULP DRAW R CHRISTENSEN | 43-9 | NESE | 9 | 45N | 76W | WYW89855 |
| 10 | CULP DRAW R CHRISTENSEN | 24-9 | SESW | 9 | 45N | 76W | WYW21220 |
| 11 | CULP DRAW R CHRISTENSEN | 14-10 | SWSW | 10 | 45N | 76W | WYW72484 |
| 12 | CULP DRAW R CHRISTENSEN | 12-15 | SWNW | 15 | 45N | 76W | WYW89855 |
| 13 | CULP DRAW R CHRISTENSEN | 34-18 | SWSE | 18 | 45N | 76W | WYW147322 |
| 14 | CULP DRAW R CHRISTENSEN | 31-18 | NWNE | 18 | 45N | 76W | WYW147322 |
| 15 | CULP DRAW R CHRISTENSEN | 42-18 | SENE | 18 | 45N | 76W | WYW147322 |
| 16 | CULP DRAW R CHRISTENSEN | 43-18 | NESE | 18 | 45N | 76W | WYW147322 |
| 17 | CULP DRAW R CHRISTENSEN | 12-19 | SWNW | 19 | 45N | 76W | WYW147322 |
| 18 | CULP DRAW R CHRISTENSEN | 41-19 | NENE | 19 | 45N | 76W | WYW147322 |
| 19 | CULP DRAW R CHRISTENSEN | 34-21 | SWSE | 21 | 45N | 76W | WYW41473 |
| 20 | CULP DRAW R CHRISTENSEN | 43-21 | NESE | 21 | 45N | 76W | WYW41473 |
| 21 | CULP DRAW R CHRISTENSEN | 43-28 | NESE | 28 | 45N | 76W | WYW0266653 |
| 22 | CULP DRAW R CHRISTENSEN | 21-28 | NENW | 28 | 45N | 76W | WYW89852 |
| 23 | CULP DRAW R CHRISTENSEN | 34-12 | SWSE | 12 | 45N | 77W | WYW146848 |
| 24 | CULP DRAW R CHRISTENSEN | 43-12 | NESE | 12 | 45N | 77W | WYW146848 |

**Hartzog Draw Federal POD Wells**

| | Well Name | Well # | QTR/QTR | Sec | TWP | RNG | Lease |
|---|---|---|---|---|---|---|---|
| 1 | HARTZOG DRAW R CHRISTENSEN | 43-4* | NESE | 4 | 45N | 76W | WYW145593 |
| 2 | HARTZOG DRAW R CHRISTENSEN | 41-9 | NENE | 9 | 45N | 76W | WYW145594 |
| 3 | HARTZOG DRAW R CHRISTENSEN | 12-10 | SWNW | 10 | 45N | 76W | WYW72484 |
| 4 | HARTZOG DRAW R CHRISTENSEN | 21-10 | NENW | 10 | 45N | 76W | WYW72484 |
| 5 | HARTZOG DRAW R CHRISTENSEN | 23-10 | NESW | 10 | 45N | 76W | WYW72484 |
| 6 | HARTZOG DRAW R CHRISTENSEN | 32-10 | SWNE | 10 | 45N | 76W | WYW72484 |
| 7 | HARTZOG DRAW R CHRISTENSEN | 34-10 | SWSE | 10 | 45N | 76W | WYW72484 |
| 8 | HARTZOG DRAW R CHRISTENSEN | 41-10 | NENE | 10 | 45N | 76W | WYW51703 |
| 9 | HARTZOG DRAW R CHRISTENSEN | 12-14 | SWNW | 14 | 45N | 76W | WYW72484 |
| 10 | HARTZOG DRAW R CHRISTENSEN | 14-15 | SWSW | 15 | 45N | 76W | WYW21220 |
| 11 | HARTZOG DRAW R CHRISTENSEN | 32-15 | SWNE | 15 | 45N | 76W | WYW89855 |
| 12 | HARTZOG DRAW R CHRISTENSEN | 21-15 | NENW | 15 | 45N | 76W | WYW89855 |
| 13 | HARTZOG DRAW R CHRISTENSEN | 23-15 | NESW | 15 | 45N | 76W | WYW21220 |
| 14 | HARTZOG DRAW R CHRISTENSEN | 41-15 | NENE | 15 | 45N | 76W | WYW89855 |
| 15 | HARTZOG DRAW R CHRISTENSEN | 43-15 | NESE | 15 | 45N | 76W | WYW89855 |
| 16 | HARTZOG DRAW R CHRISTENSEN | 34-15 | SWSE | 15 | 45N | 76W | WYW89855 |
| 17 | HARTZOG DRAW R CHRISTENSEN | 32-22 | SWNE | 22 | 45N | 76W | WYW89855 |
| 18 | HARTZOG DRAW R CHRISTENSEN | 43-22 | NESE | 22 | 45N | 76W | WYW89859 |
| 19 | HARTZOG DRAW R CHRISTENSEN | 34-22 | SWSE | 22 | 45N | 76W | WYW89859 |
| 20 | HARTZOG DRAW R CHRISTENSEN | 11-23 | NWNW | 23 | 45N | 76W | WYW147322 |
| 21 | HARTZOG DRAW R CHRISTENSEN | 21-23 | NENW | 23 | 45N | 76W | WYW147322 |
| 22 | HARTZOG DRAW R CHRISTENSEN | 24-23 | SESW | 23 | 45N | 76W | WYW147322 |
| 23 | HARTZOG DRAW R CHRISTENSEN | 12-27 | SWNW | 27 | 45N | 76W | WYW41473 |
| 24 | HARTZOG DRAW R CHRISTENSEN | 21-27 | NENW | 27 | 45N | 76W | WYW41473 |
| 25 | HARTZOG DRAW R CHRISTENSEN | 43-27 | NESE | 27 | 45N | 76W | WYW41473 |
| 26 | HARTZOG DRAW R CHRISTENSEN | 32-32 | SWNE | 32 | 46N | 76W | WYW18925 |
| 27 | HARTZOG DRAW R CHRISTENSEN | 41-32 | NENE | 32 | 46N | 76W | WYW18925 |
| 28 | HARTZOG DRAW R CHRISTENSEN | 34-33 | SWSE | 33 | 46N | 76W | WYW41488 |
| 29 | HARTZOG DRAW R CHRISTENSEN | 43-33 | NESE | 33 | 46N | 76W | WYW41488 |

**Lands and Realty Row's:**

The following right-of-way locations were identified with the Culp Draw POD for road, water, buried power and gas. Use and maintenance of these locations are prohibited until authorized right-of-ways have been issued.

1. T. 45 N., R. 77 W., section 12, lot 7 for the road, gas, water and power leaving the 34-12-4577 well. An amendment to two existing rights-of-ways WYW159912 & WYW170042 will tie into this proposed location.

The following right-of-way locations were identified with the Hartzog Draw POD for 3-Phase Overhead Power. Use and maintenance of these locations are prohibited until authorized right-of-ways have been issued.

2. T. 45 N., R. 77 W., section 17.

## I. SITE SPECIFIC

**Hartzog Draw Federal POD Surface Use Site-Specific Conditions of Approval**

1. A 30 Day Stabilization COA will apply to both the road and the location for the following wells due to poor reclamation potential: 43-27. ***** *The disturbance areas identified have poor reclamation suitability 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 finished within 30 days of the initiation of construction activities. Stabilization efforts include mulching, matting, soil amendments, etc. (For further detail reference the Reclamation Management Plan April 30, 2010).*

2. A 20' foot vegetated buffer must be maintained on the locations for the following wells due to slope and the proximity to adjacent drainages: 41-15, 32-22, 34-22, 21-10, 32-32, and 34-33.

3. Covert Green will be implemented as the color scheme for the entire POD; this is attributed to the fact that covert green is best suited to match the vegetation within the POD.

4. Complete slope staking shall be required prior to construction. Staking shall be completed on 100 foot intervals on tangent sections for through cuts and/or fills less than 5 feet. Staking shall be completed on 50 foot intervals for horizontal and vertical curves, balanced tangent sections, and road sections requiring more than 5 feet of cut and/or fill. This condition of approval will be implemented for the entire POD for all engineered roads and locations.

5. An agreement for the main access road that is proposed through sections 22, 26, and 27 will need to be submitted to the BLM Authorized Officer prior to construction. The agreement will need to demonstrate that the operators that will be using the shared access road and utility corridor are all in agreement for construction and maintenance of the shared road. This agreement will include Yates Petroleum, Williams, and Anadarko Petroleum.

6. 24-23: A 30 Day Stabilization COA will apply to only the access road due to poor reclamation potential.

7. 21-27: A 30 Day Stabilization COA will apply only to the location due to poor reclamation potential.

8. 43-27: The cattle guard on Robert Christensen will utilize a swing gate per landowner request.

9. 12-27: The operator will be required to reclaim the un-used portion of the existing road not being utilized for the federal action. The portion of the un-used road being reclaimed will need to be signed accordingly and blocked off. The operator will provide a reclamation plan prior to construction of the 12-27 location and access road addressing the reclamation of the un-used existing road; due to sandy soils.
10. 34-15: There will be no loop access road crossing the drainage to the east; i.e. surface occupation, approved through the drainage to the west of the location due to poor reclamation potential, erosive soils, and side slope in excess of 60% that would be impacted. Pipeline installation will still be authorized as this is a temporary surface disturbing activity and not surface occupancy.

11. 43-4: The operator will utilize the existing access road, road base gravel, and will incorporate a template design to minimize overall surface disturbance and maintain the integrity of the road.

12. 21-10: As agreed upon at the onsite the pipeline will go NW to the main access road/utility corridor

and will corridor with existing Bell Fouche line to minimize overall surface disturbance.

13. 21-10: The location is a dead end and will need to be signed accordingly in order to keep personnel from using the pipeline corridor as an access road and enhance the reclamation of the pipeline.

14. 32-10: Two cattle guards will need to be installed with swing gates to the east and south of the location per landowner request.

15. 41-10: The access road will need to incorporate a spot upgrade where the access road crosses the existing pipeline to mitigate for pipeline subsidence.

**Culp Draw Federal POD Surface Use Site-Specific Conditions of Approval**

1. A 30 Day Stabilization COA will apply to both the road and the location for the following wells due to poor reclamation potential: 12-19 and 41-19. ***** *The disturbance areas identified have poor reclamation suitability 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 finished within 30 days of the initiation of construction activities. Stabilization efforts include mulching, matting, soil amendments, etc. (For further detail reference the Reclamation Management Plan April 30, 2010).*

2. A 30 Day Stabilization COA will apply to only the access road for the following wells due to poor reclamation potential: 34-21, 21-28, and 13-9.

3. A 30 Day Stabilization COA will apply only to the location for the following wells due to poor reclamation potential: 23-7.

4. A 20' foot vegetated buffer must be maintained on the locations for the following wells due to slope and the proximity to adjacent drainages: 12-15, 43-9, 23-7, 12-19, 41-19, and 21-28.

5. A 20' foot vegetated buffer must be maintained on the access road for the following wells due to slope and the proximity to adjacent drainages: 13-9.

6. A 20' foot vegetated buffer must be maintained on the locations/access roads for the following wells due to slope and the proximity to adjacent drainages: 14-10 and 31-18.

7. Covert Green will be implemented as the color scheme for the entire POD; this is attributed to the fact that covert green is best suited to match the vegetation within the POD.

8. Complete slope staking shall be required prior to construction. Staking shall be completed on 100 foot intervals on tangent sections for through cuts and/or fills less than 5 feet. Staking shall be completed on 50 foot intervals for horizontal and vertical curves, balanced tangent sections, and road sections requiring more than 5 feet of cut and/or fill. This condition of approval will be implemented for the entire POD for all engineered roads and locations.

9. 31-18: As agreed upon at the onsite the operator will maintain the integrity of the ridge to the south and to the east to insure drainage and water dissipation on the well location.

10. 31-18: The operator will place the proposed pipeline within the engineered road segment to minimize overall surface disturbance, avoid impacting the surrounding topography, and altering the

drainage to the west. This will need to be illustrated within the engineered drawings prior to construction.

11. 34-12: The operator will be required to mitigate and avoid any impacts to the head cut at the beginning of the access road within the reclamation plan prior to construction.

12. 43-12: The operator will be required to mitigate and avoid any impacts to the head cut south of the location. This will need to be addressed within the reclamation plan prior to construction.

13. 43-21: The operator will corridor there access/utility corridor as close as feasible from the centerline of the existing pipeline to further reduce surface disturbance as discussed at the onsite.

14. 14-20: The junction at the beginning of the access road will have a 20' feet cattle guard and will be offset per landowner request and safety purposes.

15. 12-19: The cattle guard on the fence between Robert and John Christensen will utilize a swing gate per landowner request.

**Wildlife**

**Raptors:**

The following conditions will alleviate impacts to raptors:

1. No surface disturbing activity shall occur within 0.5 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 timing limitation will affect the following:

| Township/Range | Section | Wells and Infrastructure |
|---|---|---|
| 45N, 76W | 4 | Wells 23-4, 34-4, their access corridors, pump station, power drop, and metering facility |
| | 7 | Well 23-7, access corridors, and utility crossing |
| | 8 | Pump station |
| | 9 | Wells 12-9, 13-9, 21-9, 24-9, 32-9, 34-9, 41-9, access corridors |
| | 10 | Wells 12-10, 21-10, 32-10, 41-10, access corridors |
| | 14 | Well 12-14, and its access corridor |
| | 15 | Wells 21-15, 23-15, 32-15, 41-15, 43-15, access corridors, utility crossing, tire tank, and overhead power. |
| | 17 | overhead power |
| | 19 | Wells 12-19, 14-19, 34-19, 41-19, 43-19, their access corridors |
| | 20 | Wells 14-20, 23-20, their access corridors, power drop, pod building, and overhead power |
| | 21 | Well 34-21, and access corridors |
| | 22 | Well 34-22, 43-22, their access corridors, tire tank, and staging area |
| | 27 | Well 12-27, 21-27, 34-27, tire their access corridors, tire tanks, pod building, and pump station |
| | 28 | Well 12-28, 21-28, 34-28, 43-28, their access corridors |
| 45N, 75W | 12 | Wells 34-12, 43-12, their access corridors |
| 46N, 76W | 32 | metering facility, power drop, and access corridor to well 2-32 |

2. Surveys for new raptor nests shall be conducted, annually, within 0.5 miles of the POD boundary on or after 15 April, and prior to or during the first nest occupancy check.

3. Nest occupancy checks shall be completed for all raptor nests identified within a 0.5 mile of any infrastructure associated with the POD for as long as the POD is under construction. Once construction of the POD has ceased, nest occupancy checks shall continue for the first five years on all identified nests within a 0.5 mile of the POD boundary. Survey results will be submitted to a Buffalo BLM biologist in writing no later than 31 July of each survey year.

4. 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.

5. Well metering, maintenance and other site visits within 0.5 miles of raptor nests should be minimized during the breeding season (February 1 – July 31).

**Sage-Grouse:**

The following conditions will reduce impacts to sage-grouse:

No surface disturbing activities are permitted from March 1 to June 15. This condition will be implemented on an annual basis for the life of the project. This condition affects the following locations:

| Township/Range | Section | Wells and Infrastructure |
|---|---|---|
| 45N, 76W | 14 | Well 12-14, its access corridor, and staging area |
| | 15 | Wells 12-15, 14-15, 21-15, 23-15, 32-15, 34-15, 41-15, 43-15, access corridors, and utility crossing |
| | 17 | overhead power |
| | 18 | Wells 31-18, 34-18, 42-18, 43-18, their access corridors, tire tank, pod building, overhead power, and staging area |
| | 19 | Wells 12-19, 14-19, 34-19, 41-19, 43-19, their access corridors, and staging area |
| | 20 | Wells 14-20, 23-20, their access corridors, and overhead power. |
| | 21 | Wells 34-21, 43-21, their access corridors, and pod building. |
| | 22 | Wells 32-22, 34-22, 43-22, their access corridors, staging area, and pod building |
| | 23 | Wells 11-23, 21-23, 24-23, their access corridors |
| | 27 | Wells 12-27, 21-27, 34-27, 43-27, their access corridors, and tire tank |
| | 28 | Wells 12-28, 21-28, 34-28, 43-28, their access corridors |

a. A sage-grouse survey will be conducted by a biologist following the most current WGFD protocol. All survey results shall be submitted in writing to the authorized officer and approved prior to surface disturbing activities.
b. Maximum speed on all operator-constructed and maintained roads (except county roads) will not exceed 25 miles per hour except travel along roads within 1/2 mile of the Willow Creek or Christensen Ranch 4 sage grouse leks. These roads will be posted at 10 mph. This will affect all roads located within Sections 19 and 23 T45N/R76W.
c. Disruptive activity is restricted on or within a 0.25 mile radius of the perimeter of occupied or undetermined sage-grouse leks from 6:00 pm to 8:00 am from March 15-May15. "Disruptive activities are those that "…require people and/or activity to be in nesting habitats for a duration of 1 hour or more during a 24 hour period…" (BLM 2009). This condition applies to the Willow Creek and Christiansen Ranch 4 sage-grouse leks located within 0.25 mile of the access road passing through T45N, R76W, sections 19 and 23.

**Water Management**

1. All channel crossings must be stabilized and re-vegetated immediately after construction is completed.

2. The operator will be responsible for monitoring springs located within ½ mile of the project boundary. The springs listed below will be sampled twice each year (spring and fall) to determine water quality and discharge rates for the duration of the associated CBNG development or until data trends indicates otherwise. The sample will be analyzed for the suite of parameters required by the WDEQ for the initial WYPDES permit application. Copies of water quality and quantity results will be submitted to the BLM BFO.

**Cultural**

1. Infrastructure construction within the vicinity of cultural resource sites 48JO1431 and 48JO1480 – T45N R76W Section 6, must be confined to existing disturbance along the road.
2. All surface disturbing activity in the following areas will be monitored by a BLM cultural resource use permit (CRUP) holder or permitted crew chief. The Bureau has identified these areas as having a high potential for buried cultural deposits (areas containing alluvial deposits along Hartzog Draw). Some portions of the monitoring areas as described may lie outside alluvial deposits and exact monitoring areas are left to the discretion of the archeological monitor. All monitored areas must be plotted on the map provided with the monitoring report. The submission of two copies of a monitoring report to BFO is required within 30 days of the completion of all monitoring work.

   -All surface disturbing activity associated with the construction of the following wells and associated infrastructure: 34-15-4576, 41-15-4576, 32-22-4576, 34-22-4576, 21-27-4576, 24-23-4576, 43-27-4576.

   -All surface disturbing activity associated with access road upgrade in T45N R76W Section 23.

## II. Programmatic mitigation measures identified in the PRB FEIS ROD

Programmatic mitigation measures were developed in the PRB FEIS ROD (see Appendix A of PRB FEIS ROD) 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.

**Channel Crossings:**

1. Channel crossings by road and pipelines will be constructed perpendicular to flow. Culverts will be installed at appropriate locations for streams and channels crossed by roads as specified in the BLM Manual 9112-Bridges and Major Culverts and Manual 9113-Roads. Streams will be crossed perpendicular to flow, where possible, and all stream crossing structures will be designed to carry the 25-year discharge event or other capacities as directed by the BLM.
2. Channel crossings by pipelines will be constructed so that the pipe is buried at least four feet below the channel bottom.

**Wildlife:**

1. All power lines will be built to protect raptors, including wintering bald eagles, from accidental electrocution using methods detailed by the Avian Power Line Interaction Committee (1996).

2. 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.

3. For any surface-disturbing activities proposed in sagebrush shrublands, the Companies will conduct clearance surveys for sage grouse breeding activity during the sage grouse's breeding season before initiating the activities. The surveys must encompass all sagebrush shrublands within 0.5 mile of the proposed activities.

4. 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.

5. Containment impoundments will be fenced to exclude wildlife and livestock. If they are not fenced, they will be designed and constructed to prevent entrapment and drowning.

6. All stock tanks shall include a ramp to enable trapped small birds and mammals to escape. See Idaho BLM Technical Bulletin 89-1 entitled Wildlife Watering and Escape Ramps on Livestock Water Developments: Suggestions and Recommendations.

**STANDARD**

**General**

1. All contractors/operators will have a complete copy of the approved APD/POD, including COAs, at

   the drill site, during the construction of the roads and drill pad, the drilling of the well, completion of the well, and all other related construction activities.

2. 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 Andy Perez @ (307) 684-1166 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.

3. Approval of this APD does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease that would entitle the applicant to conduct operations thereon. In addition, approval of this APD does not imply that the operator has legal access to the drilling location. When crossing private surface 43 CFR 3814 regulations must be complied with and when crossing public surface off-lease the operator must have an approved right-of-way.

4. Confine all equipment and vehicles to the access road(s), pad(s), and area(s) specified in the approved APD or POD.

5. The approval of this project does not grant authority to use off lease Federal lands. No surface disturbing activity, or use of off-lease federal lands, is allowed on affected leases until right-of-way grants become effective which is the date signed by the authorized officer.

6. This POD is valid for two years from the date of approval or until the oil and gas lease expires/terminates, whichever occurs first. If this well intends to earn a lease extension, diligent operations (actual drilling) must be in progress over the lease expiration date, advance lease rentals must have been paid, and a letter stating drilling operations were in progress must be submitted to this office no later than five days past the expiration date. If the APD terminates, any surface disturbance

created under the application must be reclaimed according to an approved plan.

7. The operator will be in compliance with all applicable local, state and/or federal laws, regulations, and/or statutes.

8. A progress report must be filed a minimum of once a month starting with the month the well was spudded continuing until the well is completed. The report must be filed by the 25th of each month on a Sundry Notice (Form 3160-5). The report will include the spud date, casing information such as size, grade, weight, hole size, and setting depth, amount and type of cement used, top of cement, depth of cementing tools, casing test method, intervals tested, perforated, acidized, fractured and results obtained and the dates all work done.

9. In the event abandonment of the hole is desired, an oral request may be granted by this office but must be timely followed within 5 days with a "Notice of Intention to Abandon" (Form 3160-5). The "Subsequent Report of Abandonment" (Form 3160-5) must be submitted within 30 days after the actual plugging of the well bore, reporting where the plugs were placed, and the current status of the surface restoration.

10. Whether the well is completed as a dry hole or as a producer, two copies of all logs run, core descriptions, core analysis, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, work over, and/or completion operations will be filed with Form 3160-4. A gamma ray log shall be run from T.D. to ground surface.

11. The operator is responsible for informing all persons associated with this project that they shall be subject to prosecution for damaging, altering, excavating or removing any archaeological, historical, or vertebrate fossil objects on site. If archaeological, historical, or vertebrate fossil materials are discovered, the operator is to suspend all operations that further disturb such materials and immediately contact the Authorized Officer. Operations are not to resume until written authorization to proceed is issued by the Authorized Officer.

    Within five (5) working days, the Authorized Officer will evaluate the discovery and inform the operator of actions that will be necessary to prevent loss of significant cultural or scientific values.

    The operator is responsible for the cost of any mitigation required by the Authorized Officer. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that the required mitigation has been completed, the operator will be allowed to resume operations.

    a. 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.

b. 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.

12. The operator shall be responsible for the prevention of fires on public lands caused by its employees, contractors or subcontractors. During conditions of extreme fire danger, surface use operations may be limited or suspended in specific areas.

13. All survey monuments found within the area of operations shall be protected. Survey monuments include, but are not limited to: General Land Office and Bureau of Land Management Cadastral Survey Corners, reference corners, witness points, U. S. Coast and Geodetic benchmarks and triangulation stations, military control monuments, and recognizable civil (both public and private) survey monuments. In the event of obliteration or disturbance of any survey monuments, the incident shall be reported in writing to the Authorized Officer.

14. If any time the facilities located on public lands authorized by the terms of the lease are no longer included in the lease (due to a contraction in the unit or other lease or unit boundary change) the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to appropriate rental, or other financial obligation determined by the authorized officer.

15. Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever first occurs, without the prior written approval of the authorized officer. If gas is vented or flared without approval beyond the test period authorized above, you may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted. You shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

16. 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 and will include the following information: Operator Name, POD Name, Well Name and location and Date Sampled.

17. By November 1 each year, companies will submit the following information, attached to a Sundry Form 3160-5, where construction and development have taken place in the last year.

    - 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.
    - Two as-built copies of Map D.

18. 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.

19. Operators shall comply with all other conservation measures and terms and conditions identified in the Powder River Basin Oil and Gas Project Biological Opinion (ES-6-WY-07-F012).

20. 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.

## DRILLING AND PRODUCTION OPERATIONS

1. The spud date will be reported electronically, (see website location above) to the Authorized Officer 24 HOURS BEFORE SPUDDING, unless otherwise required in site specific conditions of approval.

   Spud Notice Site:
   http://www.wy.blm.gov/minerals/og/og_notices/spud_notice.php

2. 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.

### Well Control Equipment

1. The well control equipment approved in this project lists the minimum requirements.

2. The flow line shall be a minimum of 30 feet from the well bore and securely anchored. The 30-foot length of line is a minimum and operators must make consideration for increasing this length for topography and/or wind direction.

3. The flow line shall be a straight run.

4. The flow line must be constructed from non-flammable material.

5. All cuttings and circulating medium shall be directed to and contained in a reserve pit.

6. The nearest edge of the pits shall be a minimum of 25' from the rig.

7. A minimum of 2' of freeboard shall be maintained in the pits at all times.

8. The authorized officer may modify these requirements at any time if it is determined that increased pressure control is deemed necessary.

9. Verbal notification shall be given to the Authorized Officer at least 24 hours before formation tests, BOP tests, running and cementing casing, and drilling over lease expiration dates.

### Casing Program

1. The minimum requirement for casing centralizers is as follows: all casing strings will have centralizers on the bottom three joints (i.e. a minimum of one centralizer per joint starting with the shoe joint).

2. In addition, the production casing string shall be centralized with API approved centralizers using the following specifications:

   2.1. One centralizer per~120'(specifically every third or fourth joint depending on joint length).

   2.2. One centralizer 25' above surface casing shoe.

3. Surface casing length shall follow current requirements set forth by the WOGCC. Increased surface casing may be required so that the surface casing shoe may be set into a competent formation.

**Cement Program**

1. If there are indications of inadequate primary cementing of the surface, intermediate, or production casing strings; such as but not limited to no returns to surface, cement channeling, fallback or mechanical failure of equipment, the operator will evaluate the adequacy of the cementing operations. This evaluation will consist of running a cement bond log (CBL) or an alternate method approved by the Authorized Officer (AO) no sooner than 12 hours and no later than 24 hours from the time the cement was first pumped.

2. If the evaluation indicates inadequate cementing, the operator shall contact a BLM Buffalo Field Office Petroleum Engineer for approval of remedial cementing work. Remedial cementing will consist of, but may not be limited to:

    2.1. Perforating and squeezing cement to ground surface should the top of cement (TOC) be below the surface casing shoe. This shall be done within 36 hours of the completion of pumping the primary cement job.

    2.2. One-inching cement to ground surface should the top of cement (TOC) be above the surface casing shoe.

    2.3. Fallback that is found to be less than 30' from ground surface may be topped off with cement slurry.

3. The adequacy of the remedial cementing operations shall be verified by a cement bond log (CBL) or an alternate method approved by the Authorized Officer (AO). All remedial work shall be completed and verified prior to drilling out the casing shoe or perforating the casing for purposes other than remedial cementing.

4. The cement mix water used must be the same water used to develop the cement program and be of adequate quality, so as not to degrade the setting properties. Waters containing high carbonates or bicarbonates (greater than 2,000 ppm) should be avoided.

**Production Equipment**

1. All gas measurement equipment that deviates from Onshore Order #5 (or WY NTL 2004-1 in the case of electronic flow computers) shall be approved via a Notice of Intent sundry (Form No. 3160-5) prior to installation and use. This includes any type of primary device other than a standard orifice plate meter. Requests for a variance from the minimum standards of Onshore Order #5 must list:

    1.1. The specific type of equipment.

    1.2. How this equipment will meet or exceed the requirements of Onshore Order #5.

    1.3. The location, specific well and lease number where the equipment will be used.

2. An appropriate pressure gauge is required to be installed on each casing annulus to monitor this pressure.

3. Other actions such as off-lease measurement, commingling, allocation, etc. shall be approved via a Notice of Intent sundry (Form No. 3160-5). Submission of additional information in the POD shall not be construed as permission for these items. If the operator wishes to utilize off-lease gas

measurement for wells approved in this POD, they are required to obtain approval via a Notice of Intent sundry (Form No. 3160-5) prior to any gas production. A map shall be attached to the sundry that delineates where the individual wells will be measured for federal royalty. Unless this POD is committed to a Federal Oil & Gas Unit or Agreement, the production from all Federal wells shall be measured for Federal royalty prior to being combined with production from any other Federal, Indian, or non-Federal leases.

**Well and POD Building Identification**

1. From the time a well pad is constructed or a well is spudded (if no well pad needed), until abandonment, all well locations must be properly identified with a legible sign. The sign will include the well name and number, operator name, lease number, and the surveyed location.

2. At each POD building site where federal wells are metered, the operator is required to maintain a legible sign displayed in a conspicuous place. This sign is required to be in place at the time metering goes online. The sign shall include: POD name, Operator, Federal well names and numbers, Federal lease numbers being metered at the POD building, and surveyed location of the building.

**Protection of Fresh Water Resources**

1. All oil and gas operations shall be conducted in a manner to prevent the pollution of all freshwater resources. All fresh waters and waters of present or probable future value for domestic, municipal, commercial, stock or agricultural purposes will be confined to their respective strata and shall be adequately protected. Special precautions will be taken to guard against any loss of artesian water from the strata in which it occurs and the contamination of fresh water by objectionable water, oil, condensate, gas or other deleterious substance to such fresh water.

**Miscellaneous Conditions**

1. Any changes to the approved drilling plan and/or these conditions of approval shall be approved by the BLM-Buffalo Field Office Petroleum Engineer prior to being implemented.

   After hour's numbers:

   | | |
   |---|---|
   | Petroleum Engineer: Mike Worden | Home Telephone: 307-217-2995 |
   | Petroleum Engineer: Matthew Warren | Home Telephone: 307-620-0103 |
   | Petroleum Engineer: James Evans | Home Telephone: 307-331-5421 |

2. If any cores are collected, a copy of all analysis performed shall be submitted to the BLM-Buffalo Field Office Petroleum Engineer.

## SURFACE USE STANDARD

### A. Construction

1. Prior to construction, the operator will remove all staking (engineered road, pads, well stakes, etc.) for those areas which were not approved with the POD/APD.

2. All roads, well pads, rig slots, culverts, spot upgrades and locations where engineered construction will occur will be completely slope staked for review prior to construction.

3. Topsoil will be segregated for all excavation including the entire disturbance area for constructed pads and excavated areas for rig leveling, reserve pits, constructed roads, spot upgrades, reservoir upgrades, outfalls and utility trenches and redistributed for interim reclamation activities. This requirement will not be applied for pipelines installed with wheel trenchers.

4. 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.

5. Maintain a minimum 20-foot undisturbed vegetative border between disturbance areas and the edge of adjacent drainages, unless otherwise directed by the BLM Authorized Officer.

6. 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.

7. 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.

8. The reserve pit will be lined with an impermeable liner if permeable subsurface material is encountered. An impermeable liner is any liner having 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.

9. The reserve pit will be constructed so that at least half of its total volume is in solid cut material (below natural ground level).

10. 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 waterbars shall be placed according to the following spacing:

| 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 load** | 310 | 260 | 200 | 150 |
| **Low erosive shale or gravel** | 400 | 325 | 250 | 175 |

11. Provide 4" of aggregate where grades exceed 8%. Surface material must meet requirements set forth in Wyoming Supplement to BLM Road Manual 9113.

12. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113 or at the discretion of the Authorized Officer.

13. Maximum speed on all operator-constructed and maintained roads will not exceed 25 miles per hour.

14. Pipeline construction shall not block nor change the natural course of any drainage. Pipelines shall cross perpendicular to drainages. Suspended pipelines shall provide adequate clearance for maximum runoff.

15. 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.

16. All overhead power lines will be constructed to Avian Power Line Interaction Committee (2006 edition or most recent edition) by the standards and additional standards identified in the PRB FEIS Biological Opinion (Volume 3, Appendix K, page 43).

**B. Operations/Maintenance**

1. 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. Operators and their contractors will comply with all state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.

2. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.

3. 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.

4. 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.

5. 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.

6. 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. 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.

7. 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.

8. 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.

9. Prior to the use of pesticides on public land, the holder shall obtain from the BLM authorized officer a pesticide use permit (PUP). The PUP must include a 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.

### C. 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 reseeding 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 (ie.,cut/fill slopes, road ditches, pipelines, etc.) and reseed with approved seed mix.

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.

### D. Reclamation/Dry Hole

1. 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.

2. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.

3. 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.

4. 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:

   - 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 CBNG water, including discharge points, reservoirs, off-channel pits, land application areas, livestock/wildlife watering facilities, surface discharge stream channels, etc.

- Refer to *BLM Impoundment Reclamation Guidance* for further information on reclaiming impoundments.
- Refer to the *Wyoming Reclamation Policy* for further guidance on reclamation.

5. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc will be reclaimed and reseeded within 180 days of well plugging. The reclamation work must be in accordance with the surface use plan and any pertinent site-specific COAs.

6. Disturbed lands will be re-contoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds.

7. 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.

8. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling area and access road on the contour to 4" below the compacted layer. The rippers are to be no farther than 24 inches apart.

9. Distribute the topsoil evenly over all disturbed areas. Prepare the seedbed and seed with approved seed mix.

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 |