

CONDITIONS OF APPROVAL
FOR THE
CBNG APPLICATION
FOR PERMIT TO DRILL

POD Name: Queen B POD

Operator: Yates Petroleum Corporation

Field Office: Buffalo Field Office
 Address: 1425 Fort Street, Buffalo, Wyoming 82834
 Office Telephone Number: 307-684-1100

List of approved wells:

	Well Name	Well #	Qtr/Qtr	Sec.	Township	Range	Lease #
1	Queenb CS Federal	#1	NENE	15	51	76	WYW40814
2	Queenb CS Federal	#3	SWNE	15	51	76	WYW40814
3	Queenb CS Federal	#4	SWSW	15	51	76	WYW40814
4	QueenB CS Federal Com.	#5	SWSE	15	51	76	WYW40814
5	QueenB CS Federal	#6	NENW	22	51	76	WYW40814
6	QueenB CS Federal	#7	SWNW	22	51	76	WYW40814
7	Queenb CS Federal	#8	SWNE	22	51	76	WYW40814
8	QueenB CS Federal	#9	NESW	22	51	76	WYW40814
9	Queenb CS Federal Com.	#10	NENE	28	51	76	WYW40814
10	Queenb CS Federal	#11	SWNE	28	51	76	WYW40814
11	Queenb Injector Federal	#12	NWNE	22	51	76	WYW40814
12	Queenb CS Federal	#13	NENE	14	51	76	WYW40814
13	Queenb CS Federal	#14	SWNE	14	51	76	WYW40814
14	Queenb CS Federal	#15	NESE	14	51	76	WYW40814
15	Queenb CSFederal	#16	SWSE	14	51	76	WYW40814

Spud dates will be reported electronically,
http://www.wy.blm.gov/minerals/og/og_notices/spud_notice.php)

to the Authorized Officer 24 HOURS BEFORE SPUDDING, unless otherwise required in site specific conditions of approval.

List of approved Right-of Ways:

COA

These facilities are prohibited until they are authorized in a grant:

<i>ROW Grant</i>	<i>ROW Action</i>	<i>SEC.</i>	<i>T.</i>	<i>R.</i>	<i>Lengths</i>	<i>Width</i>
Yates WYW-170253	Road, Water, Power	21	51N	76W	5,340'	NTE 50'
Rowdy Pipeline WYW-170254	Gas Pipeline	14,15,21,22	51N	76W	10,941'	NTE 50'

LEASE STIPULATIONS

1. Reclamation of areas disturbed as a result of lessee's operations will be done, insofar as possible, concurrently with operations. This reclamation timing stipulation applies to all areas disturbed within federal leases WYW40814 including the well locations and associated access roads and infrastructure listed below.

- Queenb CS Federal #1
 - Queenb CS Federal #3
 - Queenb CS Federal #4
 - QueenB CS Federal Com # 5
 - QueenB CS Federal #6
 - QueenB CS Federal #7
 - Queenb CS Federal #8
 - QueenB CS Federal #9
 - Queenb CS Federal #11
 - Queenb Injector Federal #12
 - Queenb CS Federal #13
 - Queenb CS Federal #14
 - Queenb CS Federal #15
 - Queenb CSFederal #16
2. In order to minimize watershed damage, during wet or heavy snow periods the Casper District Manager, Bureau of Land Management, may prohibit exploration, drilling or other development. This limitation does not apply to maintenance and operation of producing wells. This Watershed Timing Limitation Stipulation applies to all surface disturbing activities within federal leases WYW40814.
- Queenb CS Federal #1
 - Queenb CS Federal #3
 - Queenb CS Federal #4
 - QueenB CS Federal Com #5
 - QueenB CS Federal #6
 - QueenB CS Federal #7
 - Queenb CS Federal #8
 - QueenB CS Federal #9
 - Queenb CS Federal #11
 - Queenb Injector Federal #12
 - Queenb CS Federal #13
 - Queenb CS Federal #14
 - Queenb CS Federal #15
 - Queenb CSFederal #16

PROGRAMMATIC CONDITIONS OF APPROVAL

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.

SITE-SPECIFIC CONDITIONS OF APPROVAL

Surface Use

1. The operator will follow the guidance provided in the Wyoming Policy on Reclamation (IM WY-2009-022); see <http://www.blm.gov/wy/st/en/programs/reclamation.html> for details.
2. Yates will provide for construction oversight of all engineered roads and well pads.

3. The operator shall contact the BLM NRS Meleah Corey at (307)684-1070 at least 4-days prior to construction of engineered sections of the Queen B POD.
4. A vegetative buffer from the slopes greater than 25% will be maintained along the Queenb CS Federal Com. #1 access road.
5. Construction plans will be finalized during the preconstruction onsite. BLM may require road alignments be modified during the pre-construction for the following wells:
 - QueenB CS Federal #6
 - QueenB CS Federal #9
 - Queenb Injector Federal #12
6. There is excessive erosion around the foundations of the existing boxcar bridge. The erosion areas must be excavated, reshaped, backfilled, and compacted in six inch lifts to a minimum of 95% compaction per AASHTO T-99. Nuclear density testing must be provided to the BLM post construction.
7. The operator is responsible for having the licensed professional structural engineer(s) certify that the actual construction of the boxcar bridge meets the design criteria and is constructed to Bureau standards.
8. All engineered road segments, including the boxcar bridge, must be completed, including any culverts, low water crossings and required surfacing, before the drilling rig or other drilling equipment moves onto the pad.
9. Topsoil stored for a period greater than 90 days will not exceed piles of 3 feet in depth and will be seeded with the approved seed mix to prevent wind and water erosion.
10. Erosion control fabric used for reclamation of steep slopes should be photodegradable or biodegradable. Non-photodegradable/biodegradable erosion control fabric will be removed from the federal leases following establishment of a self-perpetuating native plant community and sustained soil stability.
11. In the absence of manufacture's specifications included in the operator's MSUP, erosion control fabric will be installed as follows:
 - a. The fabric will be 'keyed' into the slope by digging a small trench at the top of the slope;
 - b. Lay the top end of the material into the trench to line it;
 - c. To line it the edge is folded underneath itself and then it is secured using staples;
 - d. The trench is then filled in to the previous soil level; and
 - e. Fabric should be overlapped no less than 0.3 meter on edges and stapled on 1 meter spacing and at every seam.
12. Stabilization of steep slopes greater than 4H:1V will include but is not limited to the following components to minimize soil erosion and loss of seed:
 - a. Surface roughening/pocking or scarification perpendicular to the slope;
 - b. Install slope breakers such as wattles and water bars at the appropriate spacing;
 - c. Seed with appropriate seed mix; and
 - d. Apply straw mulch or bio/photodegradable erosion control fabric on highly erodible soils.

13. Straw/Excelsior wattles are most effective as erosion control if applied on slopes less than 3H:1V. The table below is an example of appropriate spacing of straw or excelsior wattles commonly applied as slope breakers recommended by American Excelsior Company. Tighter spacing may be required based on soil type and seasonal precipitation. In the absence of manufacture’s specifications included in the operator’s MSUP, the minimum spacing requirements will be as follows:

Slope	6-inch wattle	9-inch wattle	12-inch wattle
≤4H:1V	20 feet	40 feet	60 feet
3H:1V	15 feet	30 feet	45 feet
2H:1V	10 feet	20 feet	30 feet
≥1H:1V	5 feet	10 feet	15 feet

14. Soil compaction will be remediated on all compacted surfaces and prior to the redistribution of topsoil on disturbed surfaces to the depth of compaction by methods that prevent mixing of the soil horizons. BLM’s recommended methods are subsoiling, paraplowing, or ripping with a winged shank (as shown in the figure in Appendix C of this document). Scarification is acceptable on areas identified as very shallow or shallow soils in the MSUP.
15. All pit spoil must be placed back in the pit once the pit is dry or fluids are removed. Subsoil must then be replaced in the reserve pit before topsoiling. Under no circumstances would any by-products from drilling or subsoil to be spread on top of topsoil. The pit area should usually be mounded slightly or restored to the original contour to allow for settling and positive surface drainage.
16. The Queen B project area is dominated by soils that have been identified to have limited reclamation potential that will require disturbed areas to be stabilized (stabilization efforts may include mulching, matting, soil amendments, et. cetera) 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. Reclamation stabilization efforts shall be finished within 30 days of the initiation of construction activities. This applies to the following wells:
- Queenb CS Federal #1,
 - Queenb CS Federal #3,
 - Queenb CS Federal #4,
 - QueenB CS Federal Com. #5,
 - QueenB CS Federal #6,
 - QueenB CS Federal #7,
 - QueenB CS Federal #9,
 - Queenb CS Federal Com. #10,
 - Queenb CS Federal #11,
 - Queenb Injector Federal #12,
 - Queenb CS Federal #14,
 - Queenb CS Federal #15, and
 - Queenb CS Federal #16

This included as all linear features (i.e. improved roads and utility corridors) within the ENTIRE QUEEN B Project area.

17. The operator is responsible for having the licensed professional engineer(s) certify that the actual construction of the road meets the design criteria and is constructed to BLM standards.
18. For newly constructed roads, a minimum of the top 12 inches of road grade will be thoroughly compacted to 90 percent standard maximum dry density.
19. The BLM requires the following roads on federal surface to be surfaced with an average of 4 inches of Gradation W gravel due to the higher anticipated ADT and steep slopes/grades per the WY Supplement to the BLM Manual 9113:

All roads with grades steeper than 8% grade
 All roads with an anticipated ADT of 10 or greater (Specifically Road B as listed on map D provided by Yates Petroleum)
 All engineered road segments
 If a road currently has surfacing material applied, gravel will be applied as necessary to upgrade the road or as maintenance.

20. Reclamation for safety of travel, to reduce rutting and increase traction, and protect erodible soils place a minimum average of 4 inches of aggregate on access roads for the following wells:
 - Queenb CS Federal #1,
 - Queenb CS Federal #3,
 - Queenb CS Federal #4,
 - QueenB CS Federal Com. #5,
 - QueenB CS Federal #6,
 - QueenB CS Federal #7,
 - QueenB CS Federal #9,
 - Queenb CS Federal Com. #10,
 - Queenb CS Federal #11,
 - Queenb Injector Federal #12,
 - Queenb CS Federal #14, and
 - Queenb CS Federal #15

21. Per the BLM Manual 9113 turnouts will be provided every 1,000 feet or intervible whichever is less for single lane roads. Single-lane roads are considered to be any constructed road with a travel way width less than 24 feet.

22. On cut-slope sections of road and other sections of road where topography on one side of the road does not allow the use of lead-out (wing) ditches to relieve road ditch flow, relief culverts in the form of culverts, water bars, or drainage dips shall be placed according to the following minimum spacing:

Lateral Spacing Feet				
Soil Type	Road Grade 2-4%	Road Grade 5-8%	Road Grade 9-12%	Road Grade 13-16%
Highly erosive granitic or sandy	240	180	140	100
Intermediate erosive clay or clay/silt/sand	310	260	200	150
Low erosive shale or gravel	400	325	250	200

23. To the extent that is beneficial and feasible, lead-out ditches (these are wing ditches) shall be placed between relief culverts in order to reduce flow in the road ditch especially on steeper slopes.
24. Where relief culverts are not needed, the road shall be constructed to ensure that flow does not concentrate and water does not pond next to the road. As is necessary, lead-out ditches shall be constructed to ensure that water is dispersed away from the road according to the minimum spacing given for relief culverts.
25. Road runoff shall not be directed into pre-existing eroded features (including small steep hillside channels with no discernible floodplain or riparian vegetation), but instead will be put to beneficial use by routing lead-out ditches away from eroded features and onto stable soils. Lead-out ditches and relief culverts shall be constructed as close as practicable to crossings (e.g. on the crossing approaches or just before the approach) in order to reduce the amount of ditch water and sediment directly entering drainages.
26. The outer limits of disturbance will be staked at 100-foot intervals for all pipeline and utility corridor disturbances prior to the pre-construction field meeting.
 - a. All areas requiring bench cutting will be clearly identified.
 - b. During the pre-construction, the BLM Authorized Officer may require the alignment be modified to minimize impacts to the natural resources.
 - i. Modifications will be considered the approved plan.
27. Cross country pipeline routes will not become roads after construction is complete. All sections of pipeline will be fully reclaimed to blend with the surrounding topography. Routine pipeline inspections should be conducted by other means of transportation other than automobile.
28. 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.
29. Provide erosion control along pipeline routes to achieve successful reclamation. Erosion control features include water bars, mulching, straw crimping, or erosion blankets, etc.
 30. Culverts will be at the appropriate locations for streams and channels crossed by roads specified in the BLM Manual 9112, Bridges and Major Culverts and Manual 9113, Roads. Streams will be perpendicular to flow, where possible, and all design of stream crossing structures will carry the 25-year discharge event or other capacities as directed by the BLM.
 31. On BLM surface use the seed mixes described in The Queen Bee Plan Development (POD) Reclamation Plan Appendix B Soils Report found on page 91 (Table 52, 53, and 54). Follow seed bed preparation found on page 88 of The Queen Bee Plan Development (POD) Reclamation Plan Appendix B Soils Report. The operator will seed on the contour to a depth of no more than 0.5 inch.

Wildlife

Bald Eagles

1. In the event that a bald eagle (dead or injured) is located during construction or operation, the USFWS' Wyoming Field Office (307-772-2374) and the USFWS' Law Enforcement Office (307-261-6365) will be notified within 24 hours.
2. Special habitats for raptors, including wintering bald eagles, will be identified and considered during the review of Sundry Notices.
3. Additional mitigation measures may be necessary if the site-specific project is determined by a BLM biologist to have adverse effects to bald eagles or their habitat.

Sage-Grouse

1. Surface disturbing activities are prohibited from March 15 to June 30 in suitable sage-grouse nesting and early brood-rearing habitat within mapped habitat. 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
T51N R76W	14	Well locations: Queen B Federal 16 All access roads and associated utility corridors within the SESE, SWSE, NWSW and SWNW of this section.
	15	Well locations: Queen B CS Federal Com 2, Queen b CS Federal 3, Queen b CS Federal 4, Queen B CS Federal Com 5 All access roads and associated utility corridors, 1 power drop and 2 staging areas within the, SESW, SWSW, SWSE, NENW, NWSE, SENE and SWNE of this section. Impoundments: Swarm, Stinger and Honeycomb
	22	Well locations: Queen B CS Federal 7, Queen b CS Federal 8, Queen B CS Federal 9, and Queen b Injector Federal 12. All access roads and associated utility corridors, 1 power drop and 2 staging areas within this ENTIRE section.
	21	All access roads within the SESE of this section.
	28	Well locations: Queen b CS Federal Com 10 and Queen b CS Federal 11 All access roads and associated utility corridors within the NE of this section.

2. A greater sage-grouse survey will be conducted by a biologist following the most current WGFD protocol. All survey results shall be submitted in writing to a BFO biologist and approved prior to surface-disturbing activities.

Burrowing Owl

1. No surface-disturbing activity shall occur within 0.25 mile of all identified prairie dog colonies from April 15 to August 31, annually, prior to a burrowing owl nest occupancy survey for the current breeding season. A 0.25 mile buffer will be applied if a burrowing owl nest is identified. This condition will be implemented on an annual basis for the duration of surface-disturbing activities within the prairie dog town(s). This timing limitation will be in effect unless surveys determine the nest(s) to be inactive. This timing limitation will affect the following:

Township/Range	Section	Wells and Infrastructure
T51N R76W	14	Well location: Queen b CS Federal #16 All access roads and associated utility corridors within the SWSE of this section or within 0.25 mile of the mapped prairie dog colony.
	22	Well location: Queen B CS Federal #6 and Queen B CS Federal #7 All access roads and associated utility corridors within 0.25 mile of the mapped prairie dog colony within the NW of this section or within 0.25 mile of the mapped prairie dog colony.

Mountain Plover

1. A mountain plover nesting survey is required in suitable habitat prior to commencement of surface-disturbing activities in the following areas:

Qtr/Qtr	Section(s)	Township (N)	Range (W)	Size (acres)
SESW, NENW	23	T51N	R76W	14.3
NWNW	22	T51N	R76W	1.2
SWSE	14	T51N	R76W	1.6

2. If a mountain plover nest is identified, a seasonal disturbance-free buffer of 0.25 mile shall be maintained between March 15 and July 31. If no mountain plover nests are identified, surface disturbing activities may be permitted within suitable habitat until the following breeding season (March 15).
3. If occupied mountain plover nesting habitat is located, the amount and nature of ground-disturbing activities will be limited within identified nesting areas in a manner to avoid the abandonment of these areas. All survey results must be submitted in writing to the BFO and approved prior to initiation of surface-disturbing activities.
4. No surface-disturbing activities are permitted in the suitable habitat area listed above, from March 15 - July 31. This timing limitation will be in effect unless surveys determine no plovers are present. This timing limitation will affect the following project components:

Township/Range	Section	Wells and Infrastructure
T51N R76W	14	Well location: Queen b CS Federal 16 All access roads and associated utility corridors within the SWSE of this section or within 0.25 mile of the mapped prairie dog colony.
	22	Well location: Queen B CS Federal 6 and Queen B CS Federal 7 All access roads and associated utility corridors within 0.25 mile of the mapped prairie dog colony within the NW of this section or within 0.25 mile of the mapped prairie dog colony.

Elk

1. No surface disturbing activity shall occur within identified elk Crucial Winter range from November 15 to April 1. This timing limitation will affect the following:

Township/Range	Section	Wells and Infrastructure
T51N R76W	15	Well locations: Queen b CS Federal #4 and Queen B CS Federal Com #5 All access roads and associated utility corridors, 1 power drop and 2 staging areas within the, SW and SWSE of this section. Impoundment: Stinger
	22	Well locations: Queen B CS Federal #6, Queen B CS Federal #7, Queen b CS Federal #8, Queen B CS Federal #9, and Queen b Injector Federal #12. All access roads and associated utility corridors, 1 power drop and 2 staging areas within this ENTIRE section.
	21	All access roads within this ENTIRE section.
	28	Well locations: Queen b CS Federal Com #10 and Queen b CS Federal #11 All access roads and associated utility corridors, within this ENTIRE section.

- For the wells listed below if spudded after November 1, the reserve pit fluids must be removed immediately following completion activities to avoid potential conflicts with wildlife timing limitations and the standard COA that reserve pits be closed within 90 days, unless an exception is granted by the BLM AO.

Wells:

- Queenb CS Federal #3
- Queenb CS Federal #4
- QueenB CS Federal Com. #5
- QueenB CS Federal #6
- QueenB CS Federal #7
- QueenB CS Federal #9
- Queenb CS Federal #10
- Queenb CS Federal #11
- Queenb Injector Federal #12

Sharp-Tailed Grouse

- A survey is required for sharp-tailed grouse between April 1 and May 7, annually, within the project area for the life of the project and results shall be submitted to a BLM biologist.
- If an active lek is identified during survey, the 0.64 mile timing restriction (March 1-June 15) will be applied and surface-disturbing activities will not be permitted until after the nesting season. The required sharp-tailed grouse survey will be conducted by a biologist following WGFD protocol. All survey results shall be submitted in writing to a Buffalo BLM biologist and approved prior to surface-disturbing activities.
- Creation of raptor hunting perches will be avoided within 0.64 miles of documented sharp-tailed grouse lek sites. Perch inhibitors will be installed to deter avian predators from preying on grouse.

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
T51N R76W	14	Well locations: Queen b CS Federal #14 and Queen B Federal #16 All access roads and associated utility corridors within this ENTIRE section <i>except</i> NENE and NESE.
	15	Well locations: Queen b CS Federal #3, Queen b CS Federal #4, Queen B CS Federal Com #5 All access roads and associated utility corridors, 1 power drop and 2 staging areas this ENTIRE section. Impoundments: Swarm, Stinger and Honeycomb
	22	Well locations: Queen B CS Federal #7, Queen b CS Federal #8, Queen B CS Federal #9, and Queen b Injector Federal #12. All access roads and associated utility corridors, 1 power drop and 2 staging areas within this ENTIRE section.
	21	All access roads within this ENTIRE section.
	28	Well locations: Queen b CS Federal Com #10 and Queen b CS Federal #11 All access roads and associated utility corridors within this ENTIRE section.

2. Surveys to document nest occupancy 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 0.5 mile timing buffer will be implemented. The timing buffer restricts surface-disturbing activities within 0.5 mile of occupied raptor nests from February 1 to July 31.
3. 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.

Water Resources

1. Approved WYPDES permits required for produced water discharge will be provided prior to discharge of any CBNG production water.
2. Documentation of reclamation bonds will be provided prior to construction of the Swarm, Stinger and Honeycomb impoundments.

STANDARD CONDITIONS OF APPROVAL

General

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 NRS Meleah Corey at (307)684-1070 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 shall contact the BLM Authorized Officer NRS Meleah Corey at (307)684-1070 at least 4-days prior to beginning a Geotechnical Analysis of the Queen access road so that the meeting can be scheduled.
3. 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.
4. 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.
5. Please contact Meleah Corey, Natural Resource Specialist, at (307) 684-1070, Bureau of Land Management, Buffalo, if there are any questions concerning the following surface use COAs.
6. The first well drilled to each targeted coal zone will be designated as the POD reference well.

Designated reference wells must have the ability to be sampled at the wellhead. Water quality samples will be collected by the operator and submitted for analysis using WDEQ NPDES criteria within 30-60 days of initial water production. Results of the analysis will be submitted to the BFO-BLM Authorized Officer as soon as they become available.

DRILLING AND PRODUCTION OPERATIONS

1. The operator shall complete 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.

Well Control Equipment

1. 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.
2. The flow line shall be a straight run.
3. The flow line must be constructed from non-flammable material.
4. All cuttings and circulating medium shall be directed to and contained in a reserve pit.
5. The nearest edge of the pits shall be a minimum of 25' from the rig.
6. A minimum of 2' of freeboard shall be maintained in the pits at all times.
7. The authorized officer may modify these requirements at any time if it is determined that increased pressure control is deemed necessary.
8. 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.

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.
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 of adequate quality so as not to degrade the setting properties of the cement. Any water that does not meet municipal quality water standards shall be tested by mixing the water and cement in a lab and comparing the results to the municipal quality water mix results. If the results show that the cement qualities are not the same or greater, then the non-municipal water shall not be used for mixing cement in the well.

Production Equipment

1. 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.

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:

Supervisory Petroleum Engineer: Matthew Warren Cell Telephone: 307-620-0103

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

Construction

1. 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.
2. Remove all available topsoil 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.
3. 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.
4. Construct the backslope no steeper than ½:1, and construct the foreslope no steeper than 2:1, unless otherwise directed by the BLM Authorized Officer.
5. 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.
6. To minimize electrocution potential to birds of prey, all overhead electrical power lines will be constructed to standards identified by the Avian Power Line Interaction Committee (2006).
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. 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. 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, recontouring and replacement of topsoil. Mud and cuttings left in pit must be buried at least 3-feet below recontoured grade. The operator will be responsible for recontouring any subsidence areas that develop from closing a pit before it is sufficiently dry.
12. 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.
13. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.
14. Construction and other project-related traffic will be restricted to approved routes. Cross-country vehicle travel will not be allowed.
15. Maximum design speed on all operator constructed and maintained roads will not exceed 25 miles per hour.
16. 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.
17. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.
18. 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.
19. Operators are required to adhere to the Wyoming Pollutant Discharge Elimination System Stormwater Rules and Regulations as administered by the Wyoming Department of Environmental Quality for surface/soil disturbing activities.
20. 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.

Operations/Maintenance

1. Confine all equipment and vehicles to the access road(s), pad(s), and area(s) specified in the approved APD or POD.
2. 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.
3. 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.
4. 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 Queen B POD is Covert Green.
5. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.
6. 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.
7. 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.
8. 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 exemptIt 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.

9. 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.).

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. Reduce the backslope to 2:1 and the foreslope to 3:1, unless otherwise directed by the BLM Authorized Officer. Reduce slopes by pulling fill material up from foreslope into the toe of cut slopes.
3. 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.
4. 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.
5. 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.
6. 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.
7. Waterbars shall be installed on all reclaimed pipeline corridors.

Reclamation/Dry Hole

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 to 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 area 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 following the contour.
6. 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

7. BLM will not release the performance bond until the area has 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.