APPENDIX A: Conditions of Approval for Conventional Application for Permit to Drill

Categorical Exclusion 3 (CX3)
WY-070-390CX3-14-139 to -140 and WY-070-390CX3-14-259 to -263
Section 390, Energy Policy Act of 2005
Devon Energy Production Company, L.P., Barlow 1, Barlow Ranch 2 and Barlow 3
Plan of Development (POD)

Operator: Devon Energy

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

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

Well List:

#	Well Name/ Well #	POD	Qtr	Sec	Twp	Rng	Lease	CX #: WY-070-
1	*07-064974-1XPH	Barlow 1	NWNW	18	49N	74W	WYW145138	-390CX3-14-139
2	*18-194974-1XPH	Barlow 1	NWNW	18	49N	74W	WYW145138	-390CX3-14-140
4	22-154975-4XPH	Barlow 3	SESE	22	49N	75W	WYW173728, WYW147305	-390CX3-14-260
6	354975-4PH	Barlow 3	SESE	35	49N	75W	WYW147298, WYW147308	-390CX3-14-262

*Two wells/ one pad. Administrative numbering is consistent in the CX3, Decision Record, COAs, and RMMs.

PROGRAMMATIC COAs

Programmatic mitigation measures are those measures, identified in the PRB FEIS ROD and 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.

Wildlife

1. The Companies will locate facilities so that noise from the facilities at any nearby Greater Sage-Grouse or sharp-tailed grouse display grounds does not exceed 49 decibels (10 dBA above background noise) at the display ground.

SITE SPECIFIC

Surface

1. BLM approved fluids and drilling mud must be buried within the pit. Subsoil must then be replaced in the pit before topsoiling. Under no circumstances would any by-products from drilling or subsoil to be spread on top of topsoil.

Water

1. The operator will collect a water sample representative of the water produced from this (these) wells for analysis within 90 days of initial production. Results of the analysis will be submitted to the BLM

Authorized Officer as soon as they become available. The constituents analyzed in the water quality analyses will be the same as those required by the WDEQ for WYPDES permit using approved EPA test procedures (40 CFR 136 or 40 CFR 136.5).

2. After well completion, the operator shall submit a Sundry Notice for approval of disposal of all produced water in accordance with Onshore Oil and Gas Order No. 7, Disposal of Produced Water.

Wildlife

Sage-grouse

1. No surface disturbing activities are permitted between March 15 and June 30. This condition will be implemented on an annual basis for the duration of surface disturbing activities. This timing limitation will affect the following wells and associated road and infrastructure:
   - Barlow Ranch Fed 07-064974-1PH
   - Barlow Ranch Fed 18-194974-1XPH
   - Barlow Ranch 22-154975-4XPH
   - Barlow Ranch 354975-4PH

   a) If a previously unknown lek is identified during surveys (April 1-May 7), additional areas may be included in the above referenced timing restriction (March 15-June 30). The required 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 Buffalo BLM biologist and approved prior to surface disturbing activities.

Raptors

The following conditions will alleviate impacts to raptors:

1. No surface disturbing activity shall occur within 0.5 mile of all raptor nests depicted in the map below, from February 1 through July 31, annually, prior to a raptor nest occupancy survey. This COA will apply to well locations Barlow Ranch Fed 07-064974-1PH, Barlow Ranch Fed 18-194974-1XPH, Barlow Ranch 22-154975-4XPH, and Barlow Ranch 354975-4PH. This condition also applies to surface disturbing activities located in SENE, SESE, SESW and SWSW Section 7; NWNW Section 18 T49N/R74W and SE Section 22; SESE Section 35 T49N/R75W.
   a. Surveys to document nest occupancy shall be conducted by a biologist, following the most current 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. A 0.5 mile timing restriction will be applied if a nest is identified as active.
   b. Surveys for new raptor nests shall be conducted during the construction phase of the project and 5 years following completion of the project within the POD. Surveys shall occur throughout the entire POD and 0.5 mile outside of the POD boundary between April 15 and June 30, and prior to or during the first nest occupancy check. A seasonal timing restriction (February 1 through July 31) will be added to surface disturbing activities within 0.5 miles of any newly discovered nests.

2. 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.

Migratory Birds

1. Migratory birds shall be effectively excluded from all facilities that pose a mortality risk, including, but not limited to, heater treaters, flare stacks, and secondary containment where escape may be difficult or wildlife toxicants are present.

2. Removal of habitat supporting BLM sensitive migratory bird species is prohibited during the migratory bird nesting season (May 1 – July 31) unless an avian nesting survey performed by a

biologist confirms an absence of nesting birds in the disturbance area. This timing limitation will affect the following wells and associated road and infrastructure:

- Barlow Ranch Fed 07-064974-1PH
- Barlow Ranch Fed 18-194974-1XPH
- Barlow Ranch 22-154975-4XPH
- Barlow Ranch 354975-4PH

a. Results of the nesting survey must be submitted in writing to a Buffalo BLM biologist prior to commencement of activities.
b. If the survey shows an absence of nesting birds, then surface disturbance can proceed during the nesting season within 10 days of the survey to avoid harming new nesting arrivals. After 10 days has lapsed, a new survey will be required. Exceptions will be evaluated by a BLM biologist allowing for alternate timelines or specific activities to occur.
c. If the survey shows nesting birds are present and or if the permitted activity would likely cause "take", then the activity will be delayed until the nestlings fledged.
d. Exceptions will be evaluated by a BLM biologist on a case by case basis.

Sharp-Tailed Grouse

1. A survey is required for sharp-tailed grouse between April 1 and May 7, annually, within 0.64 miles of surface disturbing activities. This condition will be implemented on an annual basis for the duration of surface disturbing activities. This timing limitation will affect the following wells and associated road and infrastructure:
   - Barlow Ranch Fed 07-064974-1PH
   - Barlow Ranch Fed 18-194974-1XPH
   - Barlow Ranch 22-154975-4XPH
   - Barlow Ranch 354975-4PH

2. 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.

DRILLING AND PRODUCTION OPERATIONS

1. **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.**

2. New hard-band drill pipe shall not be rotated inside any casing. Hard-band drill pipe shall be considered new until it has been run at least once.

3. All Blow Out Prevention Equipment tests shall include a 5 minute low pressure test between 250 psi and 500 psi with no drop in pressure with the only exception being the chokes. The chokes are only required to have the high pressure test held for a minimum length of time necessary to verify their functional integrity.

4. All operations must be conducted in accordance with all applicable laws and regulations: with the lease terms, Onshore Oil and Gas Orders, NTL's; and with other orders and instructions of the Authorized Officer, unless a variance has been granted in writing by the Authorized Officer.

5. The Operator shall install an identification sign consistent with the requirements of 43 CFR 3162.6 immediately upon or before the completion of the well pad construction operations.

6. All Blow Out Prevention Equipment rated 5M or greater shall be isolated from the casing and tested to stack working pressure. All Blow Out Prevention Equipment tests shall be performed by a suitable test pump, not the rig-mud pumps and recorded on a chart. The chart shall be submitted to the Buffalo Field Office.

7. Low test on Blow Out Prevention Equipment shall be performed and passed before moving onto the high test for each component.

8. 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.

9. If the evaluation indicates inadequate cementing, the operator shall contact a BLM Buffalo Field Office Petroleum Engineer for approval of remedial cementing work.

10. 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.

11. 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, than the non-municipal water shall not be used for mixing cement in the well.

12. 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.

13. 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: Matthew Warren, Cell Telephone: 307-620-0103.

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 (depths vary from 4 inches on ridges to 12+ inches in bottoms) from constructed well locations including areas of cut and fill, and stockpile at the site. Topsoil will also be salvaged for use in reclamation on all other areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. Any topsoil stockpiled for one year or longer will be signed and stabilized with annual ryegrass or other suitable cover crop.

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. All overhead electrical power lines on federal surface will be constructed to the Avian Power Line Interaction Committee (2005, 2006) standards to minimize electrocution potential to birds of prey.

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 a permeability less than 10-7 cm/sec. The liner will be installed so that it will not leak and will be chemically compatible with all substances that may be put in the pit. Liners made of any man-made synthetic material will be of sufficient strength and thickness to withstand normal installation and pit use. In gravelly or rocky soils, a suitable bedding material such as sand will be used prior to installing the liner.

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. 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.

11. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.

12. Construction and other project-related traffic will be restricted to approved routes. Cross-country vehicle travel will not be allowed.

13. Maximum design 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. Pipelines shall not be run parallel in drainage bottoms. Suspended pipelines shall provide adequate clearance for maximum runoff.

15. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.

16. 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.

17. Operators are required to obtain a National Pollution Discharge Elimination System (NPDES) Storm Water Permit from the Wyoming DEQ for any projects that disturb five or more acres (changing to one acre in March 2005). This general construction storm water permit must be obtained from WDEQ prior to any surface disturbing activities and can be obtained by following directions on the WDEQ website at http://deq.state.wy.us. Further information can be obtained by contacting Barb Sahl at (307) 777-7570.

18. 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. All state and local laws and regulations pertaining to disposal of human and solid waste will be complied with.

3. Rat and mouse holes shall be filled and compacted from the bottom to the top immediately upon release of the drilling rig from the location.

4. 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.

5. 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 this POD is Covert Green.

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

7. 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 this well 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.

8. 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.

9. 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.

10. Operators are advised that prior to installation of any oil and gas well production equipment which has the potential to emit air contaminants, the owner or operator of the equipment must notify the Wyoming Department of Environmental Quality, Air Quality Division (phone 307-777-7391) to determine permit requirements. Examples of pertinent well production equipment include fuel-fired equipment (e.g., diesel generators), separators, storage tanks, engines and dehydrators.

DryHole/Reclamation

1. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc., will be expediently reclaimed and reseeded in accordance with the surface use plan and any pertinent site-specific COAs.

2. Disturbed lands will be recontoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds.

3. The fluids and mud must be dry in the reserve pit before recontouring pit area. The operator will be responsible for recontouring 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 recontour the site.

4. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling platform and access road on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.

5. Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking 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)
less than 2	200
2 – 4	100
4 – 5	75
greater than 5	50

The operator will drill seed on the contour to a depth of 0.5 inch, followed by cultipaction to compact the seedbed, preventing soil and seed losses. To maintain quality and purity, the current years tested, certified seed with a minimum germination rate of 80% and a minimum purity of 90% will be used.

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. Further clarified in SDR Decision WY-2011-22.

8. The operator must submit a Notice of Intent to Abandon and a Subsequent Report of Abandonment 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.

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 recontouring pit area. The operator will be responsible for recontouring 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. Production facilities (including dikes) must be placed on the cut portion of the location and a minimum of 15 feet from the toe of the back cut unless otherwise approved by the BLM Authorized Officer.

4. A dike will be constructed completely around the production facilities (i.e. production tanks, water tanks, and heater-treater). The dikes for the production facilities must be constructed of impermeable soil, hold 110% of the capacity of the largest tank plus 1-foot of freeboard, and be independent of the back cut.

5. Any chemicals used in treating the wells (e.g., corrosion inhibitor, emulsion breaker, etc.) will be in a secure, fenced-in area with appropriate secondary containment structure (dikes, catchment pan, etc.).

6. The load out line coming from the oil/condensate tank(s) will have a suitable containment structure to capture and recycle any oil spillage that might occur.

7. Individual production facilities (tanks, treaters, etc.) will be adequately fenced off (if entire facility not already fenced off).

8. 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.

9. Distribute stockpiled topsoil evenly over those areas not required for production and reseed as recommended.

10. 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.

11. 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.

12. If not already required prior to constructing and drilling the well location, the operator shall immediately upgrade the entire access road to BLM standards (including topsoiling, crowning, ditching, drainage culverts, surfacing, etc.) to ensure safe, environmentally-sound, year-round access.

13. Waterbars shall be installed on all reclaimed pipeline corridors.

APPENDIX B. Conditions of Approval for Conventional Application for Permit to Drill

Categorical Exclusion 3 (CX3)
WY-070-390CX3-14-139 to -140 and WY-070-390CX3-14-259 to -263
Section 390, Energy Policy Act of 2005
Devon Energy Production Company, L.P., Barlow 1, Barlow Ranch 2 and Barlow 3
Plan of Development (POD)

Operator: Devon

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

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

Well List

#	Well Name/ Well #	POD	Qtr	Sec	Twp	Rng	Lease	CX #: WY-070-
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5	294974-3PH	Barlow 2	SWSE	20	49N	74W	**WYW173726	-390CX3-14-261
7	*08-054974-3XPH	Barlow 2	NWNE	17	49N	74W	**WYW51867	-390CX3-14-263

*Two wells/ one pad. **Fee/Fee/Fed (Limited Jurisdiction). Administrative numbering is consistent in the CX3, Decision Record, COAs, and RMMs.

Site Specific

1. The operator will provide the BLM a true and complete copy of a document in which the owner of the surface authorizes the operator to drill a federal well from non-federal lands, and in which the surface owner or representative guarantees the Department of the Interior, including BLM, access to the non-federal lands to perform all necessary surveys and inspections. (See clarification in BLM Instruction Memorandum No. 2009-078, p. 2, para 6).

Water

1. The operator will collect a water sample representative of the water produced from this (these) wells for analysis within 90 days of initial production. Results of the analysis will be submitted to the BLM Authorized Officer as soon as they become available. The constituents analyzed in the water quality analyses will be the same as those required by the WDEQ for WYPDES permit using approved EPA test procedures (40 CFR 136 or 40 CFR 136.5).

2. After well completion, the operator shall submit a Sundry Notice for approval of disposal of all produced water in accordance with Onshore Oil and Gas Order No. 7, Disposal of Produced Water.

Migratory Birds

1. Migratory birds shall be effectively excluded from all facilities that pose a mortality risk, including, but not limited to, heater treaters, flare stacks, and secondary containment where escape may be difficult or wildlife toxicants are present.

STANDARD

General

1. If any cultural values [sites, artifacts, human remains (Appendix L FEIS and ROD)] are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. The authorized officer will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized BLM officer (AO). Within five working days the AO will inform the operator as to:
   - whether the materials appear eligible for the National Register of Historic Places;
   - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and,
   - a time-frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.

2. If paleontological resources, either large or conspicuous, and/or a significant scientific value are discovered during construction, the find will be reported to the Authorized Officer immediately. Construction will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM approved professional paleontologist within five (5) working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the Authorized Officer. The applicant will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant scientific interest discovered during the operation.

3. Please contact Ray Stott, at (307) 684-1179, BLM, Buffalo, if there are any questions concerning the following surface use COAs.

Drilling and Production Operations

1. **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.**

2. New hard-band drill pipe shall not be rotated inside any casing. Hard-band drill pipe shall be considered new until it has been run at least once.

3. All Blow Out Prevention Equipment tests shall include a 5 minute low pressure test between 250 psi and 500 psi with no drop in pressure with the only exception being the chokes. The chokes are only required to have the high pressure test held for a minimum length of time necessary to verify their functional integrity.

4. All operations must be conducted in accordance with all applicable laws and regulations: with the lease terms, Onshore Oil and Gas Orders, NTLs; and with other orders and instructions of the Authorized Officer, unless a variance has been granted in writing by the Authorized Officer.

5. The Operator shall install an identification sign consistent with the requirements of 43 CFR 3162.6 immediately upon or before the completion of the well pad construction operations.

6. All Blow Out Prevention Equipment rated 5M or greater shall be isolated from the casing and tested to stack working pressure. All Blow Out Prevention Equipment tests shall be performed by a suitable test pump, not the rig-mud pumps and recorded on a chart. The chart shall be submitted to the Buffalo Field Office.

7. Low test on Blow Out Prevention Equipment shall be performed and passed before moving onto the high test for each component.

8. 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.

9. If the evaluation indicates inadequate cementing, the operator shall contact a BLM Buffalo Field Office Petroleum Engineer for approval of remedial cementing work.

10. 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.

11. 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, than the non-municipal water shall not be used for mixing cement in the well.

12. 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.

13. 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: Matthew Warren, Cell Telephone: 307-620-0103.