UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
LITTLE SNAKE FIELD OFFICE

CONDITIONS OF APPROVAL
Focus Ranch Unit Geographic Area Plan
DOI-BLM-CON010-2013-0016EA
Attachment A

ADVISORY NARRATIVES AND CONDITIONS OF APPROVAL
APPLICATION FOR PERMIT TO DRILL

All lease and/or unit operations are to be conducted in such a manner to ensure full compliance with the applicable laws, regulations (43 CFR Part 3160), Onshore Oil and Gas Orders No. 1, 2, 3, 4, 5, 6 and 7, Notice to Lessees, and the approved plan of operations. Approval of this application does not relieve you of your responsibility to obtain other required federal, state, or local permits. A copy of the approved Form 3160-3 and the pertinent drilling plan, along with any advisory narratives and conditions of approval, shall be available at the drillsite to authorized representatives at all times. The operator is considered fully responsible for the actions of his subcontractors.

Your review and appeal rights are contained in 43 CFR 3165.3 and 3165.4.

ACTIONS REQUIRING BLM NOTIFICATION

48-Hours notification prior to Construction and/or Reclamation.

Oral Spud notices at least 24-hours after spudding, followed with a Sundry Notice within 5 working days.

For **WILDCAT wells**, a daily log of drilling activities shall be submitted to the BLM on a **daily** basis. For other wells, this report shall be submitted at the request of the Authorizing Officer.

Well Completion Reports must be submitted within 30-days of completion of the well or after completion of operations being performed.

For running casing, cementing, BOPE tests, drill stem tests or other notices, submit 24-hours in advance of commencing operations AND call the following number and leave voice message **with call back number**.

(970) 826-5093
(voice mail)

SITE SPECIFIC CONDITIONS (Applied to all wells, unless otherwise noted)

1. LS-101 Timing Limitation to protect wintering big game is attached to the lease that this APD is associated with. This timing limitation prevents disturbance of big game using crucial winter habitat from December 1 through April 30 (FRU Federal #33-13).

2. LS-102 and LS-112 TL to mitigate impacts to greater sage-grouse and Columbian sharp-tailed grouse during the lekking and nesting season, no construction, drilling or completion activities will occur between March 1 and June 30. In addition, no maintenance or operational activities that would be disruptive (i.e. cause loud noises) should be undertaken from March 15 through May 15.

3. Entek has agreed to purchase or donate funds to CPW to purchase 5 GPS collars for greater sage-grouse. Once purchased, CPW will collar 5 sage-grouse in the Focus Ranch Unit. Tracking movements and habitat use by grouse in this area will be used for future development planning and would provide essential information for minimizing impacts to grouse within the unit.

4. Conduct post-development well site visitations to between the hours of 9 a.m. and 4:00 p.m. and reduce well site visitations between December 1 and April 30.

5. Retaining as much vegetative cover as possible during the project and/or reclaiming and covering disturbed areas shortly following excavation should help keep localized dust down during dry periods.

6. Prior to commencing any surface disturbing activities, a qualified geotechnical engineer licensed in the State of Colorado shall prepare a site evaluation and analysis in at risk areas showing evidence of slope instability (e.g., past mass movement or slumping soils, high soil moisture content present in undisturbed soils, presence of springs or seeps), for cut and fill slopes in excess of 30 feet in height, and cut or fill slope angles steeper than the requirements in the BLM Gold Book 2007 (3:1 in erosive soil, 1:1 common soils,0.5:1 conglomerate, 0.25:1 solid rock) as determined by the BLM.

7. During the construction of the pad/and or road sections in areas at risk of slope instability or environmentally sensitive areas a qualified independent construction inspector or civil/geotechnical engineer shall be onsite

during all phases of construction in the at risk areas and as determined by the BLM. The inspector/ engineer shall confirm the pad and/or road sections are built to specification in the design package includes, but not limited to cut and fill slope staking, disturbance limits staking, excavation and embankment placement, slope compaction, slope retention devices, slope benching, at grade and subgrade drainages stormwater control measures etc. Inspection reports prepared by the construction inspector or onsite engineer would be submitted to the BLM AO.

8. Sanitation of equipment: the operator shall adhere to the following procedures for sanitizing equipment involved in aquatic interfaces.
   - Use engineering controls at all water draw points from the local creeks, streams, or rivers (i.e., overhead loading, one-way valves, install stationary draw hoses with screened intakes) to prevent contamination of unaffected water bodies.
   - Equipment that will be used for construction activities involving a stream, spring or water body should be disinfected prior to bringing it onto the construction site. Also, disinfect all equipment before moving equipment from one stream to another when working in multiple drainages.
   - Inspect and disinfect all equipment that will contact a stream, spring or water body for cleanliness before commencing work to prevent the spread of disease, aquatic parasites, and invasive species. If heavy equipment arrives from offsite, ensure that the owner/operation provides authorized officer with documentation that the equipment was cleaned in accordance with one of the following CPW standards.
   - Remove mud and debris from equipment and wet the equipment for a minimum of ten minutes with a solution containing: dialkyl dimethyl ammonium chloride (5-10% by weight), alkyl dimethyl benzyl ammonium chloride (5-10% by weight), nonyl phenol ethoxylate (5-10% by weight), sodium sesquicarbonate (1-5%), ethyl alcohol (1-5%), and tetrasodium ethylene diaminetetraacetate (1-5%), and water, or
   - Remove mud and debris from equipment and wet the equipment for a minimum of ten minutes with water at a temperature greater than 140° F.

9. Excepting culverts as proposed, no surface occupancy (NSO) of 50 horizontal feet as measured from the top of the stream bank for all intermittent or ephemeral streams/drainages.

10. Excepting culverts as proposed, controlled surface use from the edge of the NSO buffer up to 100 feet for all intermittent or ephemeral streams/drainages. Minimize locating roads, stream crossings and facilities within this zone. Adequate professional design and engineering of activities within this zone is necessary to prevent stormwater runoff and sedimentation.

11. Construction activities at perennial, intermittent, and ephemeral drainage crossings (e.g. burying pipelines, installing culverts) shall be timed to avoid high flow conditions. Construction that disturbs any flowing stream shall utilize either a piped stream diversion or a cofferdam and pump to divert flow around the disturbed area.

12. Culverts at drainage crossings shall be designed and installed to pass a 25-year or greater storm event. On perennial and intermittent streams, culverts shall be designed to allow for passage of aquatic biota. The minimum culvert diameter in any installation for a drainage crossing shall be 24 inches. Crossings of drainages deemed to be jurisdictional waters of the U.S. pursuant to Section 404 of the Clean Water Act may require additional culvert design capacity. Due to the flashy nature of area drainages and anticipated culvert maintenance, the U.S. Army Corps of Engineers (USACE) recommends designing drainage crossings for the 100-year event. Contact the USACE Colorado West Regulatory Branch at 970-243-1199.

13. The operator shall restore temporarily disturbed wetlands or riparian areas. The operator shall consult with the BLM Little Snake Field Office to determine appropriate mitigation, including verification of native plant species to be used in restoration.

14. To prevent unauthorized use of non-designated roads, the lessee will ensure that the gate(s) leading to the wells are locked at all times, and the roads leading to the wells would be posted by BLM as "Authorized Use Only." The lessee would notify BLM if unauthorized use occurs.

15. Should activities extend into winter months, prior to December 1, a Winter Construction Plan would be

submitted and approved by the BLM AO before a Notice to Proceed would be authorized for construction activities in frozen soils.

16. All sites lie within BLM grazing allotments, all sites of non-liner disturbance should be fenced to BLM specifications during final reclamations. Temporary fencing would remain in place and maintained for a minimum of two growing seasons or until BLM has determined that reclamation is satisfactory. The BLM preferred seed mix for interim and final reclamation on all sites should be as follows:

Plant Species	**Lbs. of Pure Live Seed (PLS)/Acre**
Western wheatgrass	2
Slender wheatgrass	2
Bluebunch wheatgrass	2
Mountain brome	1
Squirreltail	1
Western yarrow	0.5
Scarlet globemallow	0.5
Arrowleaf balsamroot	0.5
Total	**9.5**

17. Drill rig engines would meet EPA tiered emission standards requirements reflective of the year they begin operation in the LSFO.

18. Fresh water utilized for drilling and dust suppression would be all acquired from private sources with valid existing rights.

STANDARD CONDITIONS

15. The Little Snake Field Office will be given 48-hour notification prior to commencing construction and/or reclamation work. Contact the Little Snake Field Office (970) 826-5000 to report work that will commence.

16. Notify Little Snake Field Office at (970) 826-5000 12 to 24-hours in advance to witness running and cementing of surface casing and testing of the BOPE. Also notify the Little Snake Field Office 24-hours in advance of beginning well completion operations.

17. The notice of spud will be reported orally to the Little Snake Field Office (970) 826-5000 at least **24** hours after spudding. This notice shall include spud date, time, details of spud (hole, casing, cement, etc.), API well number, and date the rotary rig was moved on location. If the spudding occurs on a weekend or holiday, wait until the following regular workday to make this report. The oral notice shall be followed by written notification within 5 working days.

18. The APDs contain geologic downhole reports that require the operator to isolate and protect all fresh to moderately saline water (TDS < 10,000 PPM) encountered during drilling, from communication and contamination with other fluids. The operator is required to submit a report showing the depth and analysis of all groundwater encountered during drilling.

19. Comply with COGCC's 609 Groundwater Protection Rules.

20. Two copies of all electric and other logs for the well as per 43 CFR 3162.4-1(b) shall be submitted on DVD/CD rather than hard copy, *except* for the Cement Bond Log which shall be provided *both* electronically and a hard copy.

21. This permit does not relieve the proponent from the requirement to obtain other required local, state, and federal permits.

22. No hazardous materials, hazardous wastes, or trash will be disposed of on public lands or on private surface overlying the oil and gas lease. If a release does occur, it will be reported to the Little Snake Field Office immediately at (970) 826-5000.

23. All survey stakes representing the leveled drill pad, the crest of excavations, the toe of embankments, the reserve pit, and the access road will be in place prior to construction. Staking shall include the well location, two 200-foot directional reference stakes, the exterior dimensions of the drill pad, reserve pit and other areas of surface disturbance, cuts and fills, and centerline flagging of new roads with road flagging being visible from one to the next.

24. Provide the Authorized Officer with Geographic Information System (GIS) data to accurately locate and identify the well pad, access road, pipeline and all constructed infrastructure (as-built) within 60 days of construction completion. Acceptable data formats are: (1) corrected global positioning system (GPS) files with sub-meter accuracy or better or, (2) ESRI shapefiles or geodatabases. Option 2 is preferred. Data must be submitted in NAD83. Data may be submitted as: (1) an email attachment: or (2) on a standard CD in compressed or uncompressed format. All data shall include metadata, for each submitted layer, that conforms to the Content Standards for Digital Geospatial Metadata from the Federal Geographic Data Committee standards.

25. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional disturbance area needed will be approved in advance.

26. Any cultural and/or paleontological (fossil) resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and the authorized officer will make any decision as to proper mitigation measures after consulting with the holder.

27. If fossils are discovered during construction or other operations, all activity in the area will cease and the Field Office Manager will be notified immediately. An assessment of significance will be made within an agreed timeframe. Operations will resume only upon written notification by the Authorized Officer.

28. STANDARD CULTURAL STIPULATION: If cultural or paleontological resources are discovered during exploration operations under this license, the licensee shall immediately notify the Field Officer Manager and shall not disturb such discovered resources until the Field Officer Manager issues specific instructions.
    a. Within 5 working days after notification, the Field Office Manager shall evaluate any cultural resources discovered and shall determine whether any action may be required to protect or to preserve such discoveries.
    b. The cost of data recovery for cultural resources discovered during exploration operations shall be borne by the licensee, if the licensee is ordered to take any protective measures. Ownership of cultural resources discovered shall be determined in accordance with applicable law.
    c. The operator is responsible for informing all persons who are associated with the operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any project activities, the operator is to immediately stop activities in the immediate vicinity of the find and immediately contact the Authorized Officer (970) 826-5000. Within five working days the Authorized Officer will inform the operator as to:
        1. Whether the materials appear eligible for the National Register of Historic Places;
        2. The mitigation measures the operator will likely have to undertake before the identified area can be used for project activities again and,
    d. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the Authorized Officer will assume responsibility for whatever recordation, and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. 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 then be allowed to resume construction.

e. Pursuant to 43 CFR 10.4(g) (Federal Register Notice: Monday December 4, 1995, Vol 60, No. 232) the holder of this authorization must notify the Authorized Officer, by telephone (970) 826- 5087, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the Authorized Officer.

29. VEGETATION CLEARING: Vegetation removal and the degree of surface disturbance will be minimized wherever possible.
[Example of site-specific requirement: During vegetation clearing activities, trees and woody vegetation removed from the well pad and access road will be moved aside prior to any soil disturbing activities. Care will be taken to avoid mixing soil with the trees and woody vegetation. Trees left for wood gathering will be cut (twelve inches or less from the ground), delimbed, and the trunks, six (6) inches or more in diameter will be removed and placed either by the uphill side of the access road, or moved to the end of the road, or to a road junction for easy access for wood gatherers and to reduce vehicle traffic on the well pad. Trees with a trunk diameter less than six (6) inches and woody vegetation will be used to trap sediment, slow runoff, or scattered on reclaimed areas to stabilize slopes, control erosion, and improve visual resources.]

Retaining as much vegetative cover as possible during the project and/or reclaiming and covering disturbed areas shortly following excavation should help keep localized dust down during dry periods. Dust control measures, as approved by the BLM, will be applied as appropriate.

30. TOPSOIL MANAGEMENT:
The top six (6) inches of soil material will be stripped and stockpiled around the perimeter of the well location to control run-on and run-off, and to make redistribution of topsoil more efficient during interim reclamation. The stockpiled soil will be reasonably free of brush and tree parts. Topsoil will be clearly segregated from excess spoil material.
- Earthwork for interim and final reclamation must be completed within 6 months of well completion or plugging (weather permitting).
- Salvaging and spreading topsoil will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four (4) inches deep, the soil will be deemed too wet.
- No major depressions will be left that would trap water and cause ponding.
- When saturated soil conditions exist on or along the right-of-way, construction shall be halted until soil material dries out sufficiently for construction to proceed without undue damage and erosion to the right-of way.
- The operator shall provide satisfactory reclamation of all sites disturbed by their activity. This may include installation of additional erosion control devices and seeding at the discretion of the BLM Authorized Officer.
- Topsoil shall be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation. Topsoil shall only be used for reclamation and shall not be used to bed or pad the pipe during backfilling.
- To control erosion and sediment transport, roads shall be crowned or sloped, ditched, surfaced, drained with culverts and/or water dips, and constructed to BLM Gold Book standards or to engineered design if fragile soil properties exist. Culvert outlets shall incorporate controls such as rip-rap, sediment catchments, and anchored straw bales, to slow water velocity and prevent erosion and soil transport.
- The operator shall provide timely year-round road maintenance and cleanup on roads. A regular schedule for maintenance shall include, but not be limited to, crown or slope reconstruction, blading, ditch, culvert and catchment cleaning, road surface replacement, and dust abatement. When rutting within the traveled way becomes greater than three inches, blading, and/or gravelling shall be conducted as approved by the BLM Authorized Officer.
- Top soil segregation will not occur when soils are saturated or frozen unless special authorization is granted by the BLM Authorized Officer.
- All erosion and sediment control practices and measures shall be constructed, applied, and maintained in accordance with the approved erosion and sediment control plan.

- Topsoil stripping shall be confined to the immediate construction areas. A 4 to 6-inch stripping depth is common, but depth may vary depending on the particular soil. All perimeter dikes, basins, and other sediment controls shall be in place prior to stripping.
- Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding.

31. SEEDING: Seedbed Preparation. Initial seedbed preparation will consist of backfilling, leveling, and ripping all compacted areas to be seeded to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified and left with a rough surface.
    - Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24-hours prior to seeding.
    - Seed Application. Seeding will be conducted no more than 24 hours following completion of final seedbed preparation.
    - The application rate shown in the table is based on 45 pure live seeds (PLS) per square foot, drillseeded to a depth of 0.25 to 0.5 inch. (However, brush species will be seeded during the winter on the ground surface or preferably on top of snow.) In areas that will not be drill-seeded, the seed mix will be broadcast-seeded at twice the application rate shown in the table and covered 0.25 to 0.5 inch deep with a harrow or drag bar or will be broadcast-seeded into imprints, such as fresh dozer cleat marks.
    - No seeding will occur from May 15 to September 15. Fall seeding is preferred and will be conducted after September 15 and prior to ground freezing. Spring seeding will be conducted after the frost leaves the ground and no later than May 15.

32. EROSION CONTROL & MULCHING: Mulch, silt fencing, wattles, hay bales, and other erosion control devices will be used on areas at risk of soil movement from wind and water erosion.
    - Mulch will be used if necessary to control erosion, create vegetation micro-sites, and retain soil moisture and may include hay, small-grain straw, wood fiber, live mulch, cotton, jute, or synthetic netting. Mulch will be free from mold, fungi, and certified free of noxious or invasive weed seeds.
    - Straw mulch will contain fibers long enough to facilitate crimping and provide the greatest cover.

33. MANAGEMENT OF INVASIVE, NOXIOUS, AND NON-NATIVE SPECIES:
    - All vehicles and construction equipment will be cleaned using compressed air or high-pressure water spraying equipment prior to use to reduce the potential for introduction of noxious weeds or other undesirable non-native species. The wash/blow down will concentrate on tracks, feet, or tires and on the undercarriage, with special emphasis on axles, frame, cross members, motor mounts, and on underneath steps, running boards, and front bumper/brush guard assemblies.
    - An intensive weed monitoring and control program will be implemented beginning the first growing season after interim and final reclamation.
    - Monitoring will be conducted at least annually during the growing season to determine the presence of any State-listed noxious weeds. Noxious weeds that have been identified during monitoring will be promptly treated and controlled. A Pesticide Use Proposal (PUP) will be submitted to BLM for approval prior to the use of herbicides *on public land (surface) only.*

34. The cuttings pit will be designed to exclude runoff water and maintain a 2-foot freeboard between the maximum fluid level and the lowest point of containment. The cuttings pit will not be used for disposal of any materials or fluids, except for materials or fluids specifically addressed in the drilling program or having a subsurface origin. If oil or oily substance is in the cuttings pit, it must be removed within 30 days after the drilling rig is removed. Netting will be installed if oily substance is present in the cuttings pit.

35. Drainage for runoff water will be provided to divert runoff water away from the cuttings pit, cut portions of the well location and the topsoil stockpile. Runoff water that concentrates and forms channels on the well location will be diverted and/or dispersed to prevent erosion of the fill slopes. Any ditches designed to provide runoff drainage will be constructed on a minimal grade and will release water onto undisturbed ground without causing accelerated erosion. The operator will take additional measures if erosion is occurring within the runoff water drainage system.

36. The perimeter of the reserve pit and production pits, if any, will be fenced with woven wire with 2 strands of barbed wire, properly spaced, on the top and all held in place by side posts and corner H-braces to inhibit entry by livestock and wildlife. The fence will be maintained until backfilling or removal of facilities occurs.

37. In the event downhole operations threaten to exceed the required 2-foot freeboard, regarding reserve pit fluids, immediate notification will be provided to the Authorized Officer with concurrent steps taken to minimize the introduction of additional fluids, until alternative containment methods can be approved.

38. Cuttings pits must be free of fluids and backfilled within 6 months of well completion. Pits remaining open after 6 months will require written authorization of the Authorized Officer. Immediately upon well completion, any hydrocarbons or trash in the pit will be removed. On multi well pads cuttings pits must be free of fluids and backfilled within 6 months of the last well completed on the pad. The method of disposal for cuttings pit fluids must be approved by the BLM AO. Pits will be allowed to dry, be pumped dry, or solidified in-situ prior to backfilling. The backfilling of the cuttings pit will be completed within 30 days after dry conditions exist and will meet the following minimum requirements:
    a. Following completion activities, pit liners will be removed and disposed of at an approved landfill.
    b. Backfilling will be done in such a manner that the mud and associated solids will be confined to the pit and not squeezed out and incorporated in the surface materials.
    c. There will be a minimum of 5 feet of cover (overburden) on the pit. In relatively flat areas the pit area will be slightly mounded to allow for settling and to promote surface drainage away from the backfilled pit.
    d. When the work is completed, the pit areas will support the weight of heavy equipment without sinking and over time shall not subside over 6-inch depth.

39. In the event production is established, all land surfaces that are to remain free of vegetation (roads and well location) will be monitored for and protected from wind erosion; dry powdery soil will be treated to minimize wind erosion. The unused disturbed areas surrounding the well location will be re-contoured to appropriate confirmation as soon as possible. Some or all of the stockpiled topsoil will be evenly distributed over these re-contoured areas. Brush cleared prior to construction of the well site shall be scattered back over the re-contoured area.

40. Prior approval is required to remove reserve pit fluids from the reserve pit; a request of this type will need to include the destination of the fluids and if the destination is not a State approved facility, the request will include State approval of the destination.

41. All pits, cellars, rat holes and other bore holes unnecessary for further lease operations, excluding the reserve pit, will be backfilled immediately after the drilling rig is released. Pits, cellars and/or bore holes that remain on location must be fenced as specified for the reserve pit in the applicant's Surface Use Plan.

42. If installed, production facilities will be located on cut portions of the existing drill pad.

43. In the event a producing well is established, all new production equipment which has open-vent exhaust systems, such as heater treaters, separators, dehydration units, and flare stacks, shall be designed and constructed to prevent birds and bats from entering or nesting in or on such units, and to the extent practical, to discourage birds from perching on the exhaust stacks.

44. A containment berm must be installed around all storage tanks, including temporary tanks. Compaction and construction of the berm surrounding the tank or tank battery will be designed to prevent lateral movement of fluids through the utilized materials, prior to storage of fluids. The berm must be constructed to contain at minimum 110 percent of the storage capacity of the largest tank within the berm. All loading lines will be placed inside the berm.

45. All production facilities installed on location that have the potential to leak or spill oil, glycol, produced water, or other fluid, which may constitute a hazard to public health or safety, shall be placed within an appropriate secondary containment or diversionary structure. The structure shall hold 110% of the capacity the largest single tank in use and be impervious to any oil, glycol, produced water, or other toxic fluid for 72 hours. It shall be installed so that any spill or leakage would not drain, infiltrate, or otherwise escape to ground water, surface

water, or navigable waters before cleanup is completed.

46. Install raptor perch deterrents on equipment, fences, cross arms and pole tops.

47. To prevent long term impacts associated with noise, sound producing equipment (such as compressors or pump jacks) must be equipped with a hospital grade muffler or similar device which limits sound emissions to 49 decibels or less measured 30 feet from the source. Mufflers will be pointed upward to dissipate potential vibration.

48. INTERIM RECLAMATION PRODEDURES:

Recontouring:

- The portions of the cleared well site not needed for operational and safety purposes will be recontoured to the original contour or to an interim contour that blends with the surrounding topography as much as possible. Sufficient level area will remain for setup of a workover rig and to park equipment. In some cases, rig anchors may need to be pulled and reset after recontouring to allow for maximum interim reclamation.
- If the well is a producer, the final cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Construction slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
- Roads and well production equipment, such as tanks, treaters, separators, vents, electrical boxes, and equipment associated with pipeline operation, will be placed on location so as to permit maximum interim reclamation of disturbed areas. If equipment is found to interfere with the proper interim reclamation of disturbed areas, the equipment will be moved so proper recontouring and revegetation can occur.

Application of Topsoil and Revegetation:

- Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including road cuts and fills and to within a few feet of the production facilities, unless an all-weather, surfaced, access route or small "teardrop" turnaround is needed on the well pad.
- In order to inspect and operate the well or complete workover operations, it may be necessary to drive, park, and operate equipment on restored, interim vegetation within the previously disturbed area. Damage to soils and interim vegetation will be repaired and reclaimed following use. To prevent soil compaction, under some situations, such as the presence of moist, clay soils, the vegetation and topsoil will be removed prior to workover operations and restored and reclaimed following workover operations.

Visual Resources Mitigation:

- Oil and gas operations will be subject to the range of mitigation practices noted on the BLM visual resource management (VRM) website: http://www.blm.gov/nstc/VRM/.
- Trees and vegetation will be left along the edges of the pads to provide screening.
- To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, debris, and rock over recontoured cut and fill slopes.
- To reduce the view of production facilities from visibility corridors and private residences, facilities will not be placed in visually exposed locations (such as ridgelines and hilltops).
- Production facilities will be clustered and placed away from cut slopes and fill slopes to allow the maximum recontouring of cut and fill slopes.
- All long-term above ground structures will be painted an appropriate color from the BLM "Supplemental Environmental Colors" chart to blend with the natural color of the landscape background.
- Visually mitigate all surface disturbance activity back to the integrity of the VRI scenic quality rating.

49. FINAL RECLAMATION PRODEDURES:

- Final reclamation actions will be completed within 6 months of well plugging.
- All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Resalvaged topsoil will be respread evenly over the entire disturbed site to ensure successful revegetation. To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, woody debris, and

large rocks over recontoured cut and fill slopes.

- Water breaks and terracing of the site will only be installed when absolutely necessary to prevent erosion of fill material. Water breaks and terracing are not permanent features and will be removed and reseeded when the rest of the site is successfully revegetated and stabilized.
- If necessary to ensure timely revegetation, the pad will be fenced to BLM standards to exclude livestock grazing for the first two growing seasons or until seeded species become firmly established, whichever comes later. Fencing will meet standards found on page 18 of the Gold Book, 4th Edition, or will be fenced with operational electric fencing.
- Final abandonment of pipelines and flow lines will involve flushing and properly disposing of any fluids in the lines. All surface lines and any lines that are buried close to the surface that may become exposed in the foreseeable future due to water or wind erosion, soil movement, or anticipated subsequent use, must be removed. Deeply buried lines may remain in place unless otherwise directed by the authorized officer.

Monitoring and Final Abandonment Approval

- Reclaimed areas will be monitored annually. Actions will be taken to ensure that reclamation standards are met as quickly as reasonably practical.

- Reclamation monitoring will be documented in an annual reclamation report submitted to the Authorized Officer by December 31. The report will document compliance with all aspects of the reclamation objectives and standards, identify whether the reclamation objectives and standards are likely to be achieved in the near future without additional actions, and identify actions that have been or will be taken to meet the objectives and standards. The report will also include acreage figures for Initial Disturbed Acres, Successful Interim Reclaimed Acres, and Successful Final Reclaimed Acres. Annual reports will not be submitted for sites approved by the Authorized Officer in writing as having met interim or final reclamation standards. Any time 30 percent or more of a reclaimed area is redisturbed, monitoring will be reinitiated. The Authorized Officer will be informed when reclamation has been completed, is successful, and the site is ready for final inspection.

50. RECLAMATION PERFORMANCE STANDARDS:

Interim Reclamation Standard:

Disturbed areas not needed for long-term production operations or vehicle travel have been recontoured, protected from erosion, and revegetated with a self-sustaining, vigorous, diverse, native (or otherwise approved) plant community sufficient to minimize visual impacts, provide forage, stabilize soils, and impede the invasion of noxious weeds.

Final Reclamation Standard:

The original landform has been restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors.

- A self-sustaining, vigorous, diverse, native (or otherwise approved) plant community is established on the site, with a density sufficient to control erosion and non-native plant invasion and can reestablish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation. No single species will account for more than 30 percent total vegetative composition unless it is evident at higher levels in the adjacent landscape. Permanent vegetative cover will be determined successful when the basal cover of desirable perennial species is at least 80 percent of the basal cover *of the adjacent undisturbed area*. Plants must be resilient as evidenced by well-developed root systems and flowers. Shrubs must be well established and in a "young" age class at a minimum (therefore, not comprised mainly of seedlings that may not survive until the following year).
- In agricultural areas, irrigation systems and soil conditions are reestablished in such a way as to ensure successful cultivation and harvesting of crops.
- Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gullying, headcutting, slumping, and deep or excessive rilling (greater than 3 inches) is not observed.

- The site is free of State- or county-listed noxious weeds, oil field debris and equipment, and contaminated soil. [*Example of site-specific requirement*: Given that cheatgrass is common in portions of the Project Area, it may not be possible to totally eliminate this invasive species from the reclaimed area. In the case of cheatgrass, interim reclamation will be considered acceptable if cheatgrass and other undesirable vegetation are less than five percent cover, if the adjacent vegetation is less than 50 percent undesirables. Cheatgrass will be less than 50 percent cover if the adjacent vegetation is more than 50 percent undesirable species.]
- The final inspection for final reclamation success and approval for final abandonment will be subject to an interdisciplinary review. An interdisciplinary team consisting of, at a minimum, a wildlife biologist, a rangeland management specialist, and a natural resources specialist will evaluate the reclamation against the performance standards and provide the authorized officer with a recommendation as to whether or not objectives have been met.

REGULATORY REMINDERS

A. This permit is valid for a period of two years from the date of approval. Any requests for extensions must be submitted prior to the end of the two-year period. If the permit terminates, any surface disturbance created under the permit must be rehabilitated in accordance with the approved plan within 90 days of termination, unless otherwise approved by the Authorized Officer. An expired permit may be reinstated at the Authorized Officer's discretion; however, future operations may require a new application be filed for approval.

B. All drilling operations, unless otherwise specifically approved in the APD, must be conducted in accordance with Onshore Oil and Gas Order No. 2; Drilling Operations.

C. All 10-Day Requirement responses are made part of this APD.

D. There shall be no deviation from the proposed drilling and/or workover program as approved, without prior approval from the Little Snake Field Office. Safe drilling and operating practices must be observed.

E. Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease, which would entitle the applicant to conduct operations thereon.

F. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the Little Snake Field Office. If operations are to be suspended for more than 30 days, prior approval for certain well operations must be obtained and notification given before resumption of operations in accordance with 43 CFR 3162.3-2 and 3162.3-4.

G. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval for subsurface abandonment operations may be granted by the Little Snake Field Office. Oral approvals must be confirmed in writing (Notice of Intention to Abandon (Form 3160-5)) within 15 days. Unless the plugging is to take place immediately upon receipt of oral approval, the appropriate resource area must be notified at least 48 hours in advance of the plugging of the well, in order to provide a representative the opportunity to witness plugging operations.

H. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) must be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with Onshore Oil and Gas Order No. 1. Daily drilling reports, a copy of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations (with Form 3160-4) will be filed and sent to the Little Snake Field Office, 455 Emerson Street, Craig, Colorado 81625. Samples (cuttings, fluid, and/or gas) will be submitted only when requested by the Authorized Officer.

I. Section 102 (b) (3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1 (c), requires that "not later than the fifth business day after any well begins production on which royalty is due anywhere on a least site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, or the date on which such production has begun or resumed."

The date on which a well commences production, or resumes production after having been off production for more than 90 days is to be construed as follows:

1. For an oil well, the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank or the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever occurs first;
2. For a gas well, that date on which gas is first measured through sales metering facilities or the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, whichever occurs first. For purposes of this provision, a gas well shall not be considered to have been off production unless it is incapable of production.

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to $10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c) (3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3163.2(e) (2).

J. This APD is approved subject to the requirement that, should the well be successful (completed for production or recompleted for production in a new interval), the Little Snake Field Office must be notified when it is placed in a producing status. Such notification may be provided orally if confirmed in writing, and must be received in the Little Snake Field Office by not later than the 5th business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following information items:

1. Operator name
2. Well name, number, and location
3. Date well was placed on production
4. The lease, or communitized tract, or unit participating area to which the well's production is attributable.

K. A separate Monthly Report of Operations, Form 3160-6, shall be submitted for each lease, unit participating area, or communitization agreement, beginning with the month in which drilling operation commence, in accordance with 43 CFR 3162.4-3. This report shall be sent to Minerals Management Service, Production Accounting Division, P.O. Box 17110, Denver, Colorado 80217.

L. If at any time the facilities located on public lands authorized by the terms of the lease are no longer included in the lease (due to 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.

M. All produced liquids must be contained, including the dehydrator vent/condensate line effluent. All production pits must be bermed and fenced.

N. Gas produced from this well may not be vented or flared beyond an initial, authorized test period of 30 days or 50 MMCF following completion, whichever comes first, without the prior written approval of the authorized officer. Should gas be vented of flared without approval beyond the authorized test period, you may be directed to shut the well in until the gas can be captured or approval to continue venting or flaring is granted and you may be required to compensated the lessor for that portion of the gas that was vented or flared without approval which is determined to have been avoidably lost.

O. Produced water from newly completed wells may be temporarily disposed of into the reserve pit for a period of up to 90 days. During the 90-day periods, an application for approval of a permanent disposal method and location will be submitted according to Onshore Order No. 7 for approval.

P. If an Electronic Flow Computer (EFC) on a differential-type flow meter for gas measurement is used, the operator will follow the standards and requirements of Notice to Lessees (LTL-2007-1). This NTL does not alter the standards and requirements of Onshore Order No. 5, applicable variances, or NTLs which address the primary device.

Q. All occurrences of useable water at depths encountered, shall be reported to the Little Snake Field Office with the Well Completion Report.

R. A schematic facilities diagram as required by CFR 43, Part 3162.7-5, shall be submitted to the Little Snake Field Office within 60 days of installation or first production, whichever occurs first. All site security

regulations as specified in Onshore Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 3162.7-5(b).

S. The permit holder is required to use certified weed free hay, straw and mulch on BLM lands in Colorado should the use or storage of hay, straw or mulch be necessary. Any person who knowingly and willfully violates this regulation may be subject to a fine of not more than $1,000 or imprisonment of not more than 12 months, or both as defined in 43 USC 1733 (a).