

**Black Hills Plateau Production
Surface Use Plan**
Homer Deep Unit 21-41

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 and supporting Bureau of Land Management (BLM) documents. This NOS process included on-site meetings, prior to the submittal of the application at which time the specific concerns of Black Hills Plateau Production and the BLM were discussed. All specific concerns of the BLM representatives are addressed herein, as are specific stipulations from the BLM.

1. Existing Roads

Map:

Existing roads that will be used to access the well will be shown on a map with the proposed well site and its access route in relation to De Beque, Colorado. A scale of 1:24,000 is used, please refer to Sheet 10 in the plat package.

Plans:

To control erosion and sediment production, all existing and proposed access roads shall be crowned and ditched or sloped and dipped to the location, prior to use for moving the drill rig onto the site. The maximum disturbed width shall not exceed 25 feet with a running surface of 16-18 feet. Dust shall be controlled by the use of water or an approved dust retardant, as directed by the Grand Junction Field Office Manager. All roads, including access to drilling water, shall be maintained in good condition. Water dips or culverts may be required if road conditions require it. Culvert outlets shall incorporate erosion control, such as rip-rap and anchored straw bales, to slow water velocity and prevent erosion.

To minimize slope lengths, erosion, and sediment production, access road drainage dips shall be installed at approximately 250 foot intervals on grades of 5 to 10 percent and 500 foot interval on grades of 1 to 4 percent. Placement of a culvert will take the place of a water dip. Additional water dips, water turn-outs or culverts may be required if road conditions require it. Culvert outlets shall incorporate erosion control structures, such as rip-rap and anchored straw bales, to slow water velocity and prevent erosion. All drainage ditches and culverts shall be kept clear and free flowing, and shall be maintained in good condition.

Construction control stakes shall be placed as necessary to ensure construction of the access road in accordance with the outlined specifications. Road stakes shall be visible from one to the next and staked at a minimum 100 foot stationing. If stakes are disturbed, they shall be replaced before proceeding with construction.

The operator will consult with the State of Colorado Water Quality Control Division (contact Matt Czahor at: 303-692-3575) about Stormwater Discharge Permits before any construction begins. All construction activities that disturb one acre or greater require a Stormwater Discharge Permit. Compliance with the permit requires the preparation and

**Black Hills Plateau Production
Surface Use Plan**
Homer Deep Unit 21-41

implementation of a Stormwater Management Plan for systematic monitoring of the site, establishment of positive, directed run-off management and implementation of site-specific adaptive Best Management Practices (BMPs). BMPs may include run-on/run-off controls such as ditches or berms, basins, straw wattles, or other erosion and sediment control methods, to reduce potential erosion and sediment production and transport. Such measures shall be maintained in good, functional condition.

Drainage systems shall be designed and constructed in order to divert water flow away from the surface location, reserve pit, and the topsoil stockpile. They shall prevent erosion, and prevent sediment loading in waterways due to pad and/or road construction. Ditches designed to provide run-off drainage shall be constructed on a minimal grade and shall release water onto vegetated undisturbed ground without causing accelerated erosion. Stilling basins may be required in diversion ditches. The operator shall take additional measures if erosion is occurring within the run-off water drainage system.

Directions to Location:

- a. The proposed well site is located approximately 9.1 miles northwest of De Beque, Colorado.
- b. Beginning at the intersection of W. 4th street and Minter Avenue in De Beque, Colorado, proceed in a northerly then northwesterly direction along 45 Road approximately 3.2 miles to the intersection of Dry Fork Road.
- c. Exit left and follow Dry Fork Road in a westerly direction approximately 2.7 miles to the intersection of an existing road to the south.
- d. Exit left and follow existing road in a southwesterly direction approximately 2.8 miles to the intersection of an existing road to the southwest.
- e. Exit Left and follow existing road approximately 0.4 miles in a southwesterly direction to the proposed access road.
- f. Follow road flags in a southeasterly direction approximately 75 feet to the proposed location.
- g. Plans for improvement and/or maintenance of existing roads are to maintain in as good or better conditions than at present. Ruts will be smoothed; drainage crossings will be reworked as necessary.

2. Planned Access Roads

- a. For location of access roads, see Sheets 8 and 9 of the plat package.
- b. Access road are currently in place, however, improvements will occur.
- c. 4" steel gas gathering pipeline will be installed in the access road which will connect to existing pipeline in the existing road.
- d. All roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

**Black Hills Plateau Production
Surface Use Plan**
Homer Deep Unit 21-41

3. Location of Existing Wells (Sheet 10 of Plat Package)

- a. Water wells - 0
- b. Injection wells – 0
- c. Production wells – 0
- d. Proposed wells – 1
- e. Shut-in gas wells – 2
- f. Disposal wells – 0
- g. Abandoned Locatoin – 2

4. Location of Existing and/or Proposed Facilities if Well is Productive

If the well is a producer:

- a. Production facilities shall be located and arranged to facilitate safety and minimize long-term surface disturbance, as shown on Sheet 7 of 11, in the APD.
- b. Excess material and topsoil shall be stored as shown on Sheet 7 of 11, in the APD.
- c. All installed production facilities, such as storage tanks, load outs, separation and treating units, that have the potential to leak or spill any fluid which may constitute a hazard to public health or safety shall be placed within an appropriate secondary containment structure. The structure may consist of dikes, walls, drip pans or other construction which shall be installed so that any spill or leakage cannot drain, infiltrate, or otherwise escape to ground water, surface water, or navigable waters before cleanup is completed. 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.
- d. Chemical containers shall be clearly labeled, maintained in good condition and placed within secondary containment in case of spill or puncture. They shall not be stored on bare ground, nor exposed to sun and moisture.

5. Location and Type of Water Supply

- a. Water for the drilling of this well will be trucked in from Latham Ponds, adjacent to the Colorado River (SE/4NW/4 Se. 27 T8S R97W) under the existing permit.
- b. A water supply well will not be drilled on the lease.

6. Construction Materials

- a. Construction materials will consist of native materials from borrow ditches and location areas.
- b. Surfacing materials will be obtained from available permitted sources, if needed, and consist of pit gravel.

**Black Hills Plateau Production
Surface Use Plan
Homer Deep Unit 21-41**

7. Methods for Handling Waste Disposal

- a. The reserve pit will be constructed so as not to allow discharge. The need for a reserve pit liner will be determined during construction.
- b. Burning will not be allowed. All trash will be contained in a trash cage and its contents removed at the end of drilling operations and hauled to an approved disposal site.
- c. After first production, produced waste water will be confined to an unlined pit or storage tank for a period not to exceed ninety (90) days. During the 90-day period an application for approval of a permanent disposal method and location, along with a water analysis, will be submitted for the AO's approval.
- d. Drill cuttings are to be contained and buried in the reserve pit.
- e. Any salt and/or chemicals which are an integral part of the drilling system will be disposed of in the same manner as the drilling fluid.
- f. A chemical portable toilet will be furnished with the drilling rig.

8. Ancillary Facilities

- a. There are no ancillary facilities such as airstrips or camps planned during the drilling of the proposed well.

9. Well Site Layout

- a. See attached well site layout (Sheet 6 of plat package).

10. Plans for Reclamation of the Surface

- a. Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, materials, trash and other materials not required for production.
- b. Immediately upon completion, any hydrocarbons on the pit will be removed in accordance with 43 CFR 3162.7-1.
- c. If a plastic pit liner is used, it will be removed before backfilling of the reserve pit.
- d. The reserve pit and portion of the location not needed for production facilities/operations will be recontoured to the approximate original contours using the top soil stockpiled during location construction. The reserve pit will be reclaimed within 90 days from the date of well completion. Before any dirt work takes place, the reserve pit will have all fluids removed and all cans, barrels, pipe, etc. removed.
- e. Reclamation of unused disturbed areas on the well pad/access road no longer needed for operations will be accomplished by grading, leveling and seeding as recommended by the landowner or the Authorized Officer.

**Black Hills Plateau Production
Surface Use Plan**
Homer Deep Unit 21-41

- f. The soil-banked material will be spread over the area. Revegetation will be accomplished by planting mixed grasses as per formula by BLM. Revegetation is recommended for road area as well as around drill pad.
- g. The rehabilitation will begin after the drilling rig is removed.
- h. Scatter stored brush will be spread at the toe of the slope. Pinion-chip shred will be spread. Trees will be left for purposes of Visual Resource Management.
- i. Areas unnecessary to operation shall be reshaped to blend with natural topography to the extent possible, then seeded according to the specified method and seed mixture. Perennial vegetation will be established.
- j. To blend with the natural environment, all permanent above-ground facilities placed on the location shall be painted BLM Standard Environmental Color Shale Green 10YR 6/3, in a non-reflective finish.
- k. The operator shall fulfill the conditions of the integrated weed management program described by BLM/FS in the Noxious and Invasive Weed Mgmt Plan, dated April 30, 2007. The operator shall monitor and control all noxious weeds and weed species of local concern within the limits of the access roads, pipelines, and well pads. A report summarizing weed management actions will be completed and submitted to the BLM by December 1, each year. Prior to the use of pesticides, written approval shall be obtained from the BLM.

11. Surface ownership

Access Roads – All roads are County maintained and federally owned and managed by:

BLM Grand Junction Field Office
2815 H Rd
Grand Junction, CO 81506
970-244-3000

Well pad – The well pad is located on federal land managed by:

BLM Grand Junction Field Office
2815 H Rd
Grand Junction, CO 81506
970-244-3000

Black Hills Plateau Production
Surface Use Plan
Homer Deep Unit 21-41

12. Other Information

- a. All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved plan of operations and any applicable Notice to Lessees. The Operator is fully responsible for actions of his subcontractors. A copy of these conditions will be furnished to the field representative to insure compliance.
- b. A complete copy of the approved APD will be on location during construction of the location and drilling activities.
- c. The operator or his contractor will contact the BLM Office at 970-244-3000 48 hours prior to construction activities.

Black Hills Plateau Production
Surface Use Plan
Homer Deep Unit 21-41

13. Lessee's or Operator's Representative and Certification

Permit Matters

Jessica Donahue
Black Hills Plateau Production
350 Indiana Street, Suite 400
Golden Colorado 80401
720-210-1333

Drilling and Completion Matters

Black Hills Plateau Production
350 Indiana Street, Suite 400
Golden Colorado 80401
720-210-1333 Leslie May

Certification

"I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; and that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by The Houston Exploration Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement."

Date _____

Jessica Donahue
Black Hills Plateau Production