

Surface Use Plan of Operations

Introduction

The following surface use plan of operations will be followed and carried out once the APD is approved. No other disturbance will be created other than what was submitted in this surface use plan. If any other surface disturbances is needed after the APD is approved, a BLM approved sundry notice or right of way application will be acquired prior to any new surface disturbances.

Before any surface disturbance is created, stakes or flagging will be installed to mark boundaries of permitted areas of disturbance, including soils storage areas. As necessary, slope, grade, and other construction control stakes will be placed to ensure construction in accordance with the surface use plan. All boundary markers will be maintained in place until final construction cleanup is completed. If disturbance boundary markers are disturbed or knocked down, they will be replaced before construction proceeds.

If terms and conditions are attached to the approved APD and amend any of the proposed actions in this surface use plan, we will adhere to the terms and conditions.

1. Existing Roads

- a. The existing access road route to the proposed project is depicted on Land Survey Plat. No new surface disturbance will be done, unless otherwise noted in the New or Reconstructed Access Roads sections of this surface plan.
- b. The Existing access road route to the proposed project does not cross lease or unit boundaries, so a BLM right-of-way grant will not be acquired for this proposed road route.
- c. Existing oil and gas roads utilized to access the proposed project will be maintained by crowning, clearing ditches, and fixing potholes. All existing structures on the entire access route such as cattle guards, other range improvement projects, culverts etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use.

2. New or Reconstructed Access Roads

- a. The new road in Red on the C-102 plat will be constructed as the access roads for the location.

3. Location of Existing Wells

- a. A 1 mile radius map has been attached with the APD.

4. Location of Existing and/or Proposed Production Facilities

- a. All permanent, lasting more than 6 months, above ground structures including but not limited to pumpjacks, storage tanks, barrels, pipeline risers, meter housing, etc. That are not subject to safety requirements will be painted a non-reflective paint color that blends in with the surrounding landscape. The paint color will be one of the

colors from the BLM Standard Environmental Colors chart selected by the BLM authorized officer.

- b. All proposed production facilities that are located on the well pad will be strategically placed to allow for maximum interim reclamation, recontouring, and revegetation of the well location.
- c. Production from the proposed well will be contained on an onsite battery. See attached drawing included with APD.
- d. A pipeline to transport production will be installed from the proposed well to the battery
 - i. We plan to install a 2.875 inch Steel (tubing) pipeline below surface from the proposed well to the production facility. The maximum working pressure of the pipeline will be 7,260 psi; however we will not operate this pipeline at an internal pressure in excess of 250 psi.
 - ii. Attached drawing depicts the proposed production pipeline route from the well to the production facility.
 - iii. The proposed pipeline will be below surface.
- e. If any plans change regarding the production facility or other infrastructure (pipeline, electric line, etc.), we will submit a sundry notice or right of way (if applicable) prior to installation of construction.
- f. An electric line will be applied for through a sundry notice or BLM right-of-way at a later date.

5. Location and Types of Water

- a. The source and location of the water supply are as follows: The well will be drilled with a combination of fresh water and brine water based mud systems. The water will be obtained from commercial suppliers in the area and/or piped or hauled to the location by transport trucks over an existing road. Any temporary pipelines for transfer of water will be installed along existing roads and removed within one week following the final use of such pipelines.

6. Construction Materials

- a. Construction material that will be used to build the well pad and road will be caliche.
- b. All material required for construction of the drill pad and access roads will be obtained from private, state, or federal pits. If the well pad is flipped to acquire caliche underneath the well pad, Read and Stevens shall stay within the approved well pad area when performing these operations. A federal mineral material permit will be acquired prior to flipping the location for caliche or acquiring caliche from a federal pit.

7. Methods of Handling Waste

- a. Drilling fluids and produced oil and water from the well during completion operations will be stored safely and disposed of properly in an NMOCD-approved disposal facility.

- b. Garbage and trash produced during drilling and completion operations will be collected in a trash bin and disposed of properly at a state approved site. All trash on and around the well site will be collected for disposal.
- c. Human waste and grey water will be properly contained and disposed of properly at a disposal facility.
- d. After drilling and completion operations, trash, chemicals, salts, frac sand and other waste material will be removed and disposed of properly at a disposal site.
- e. The well will be drilled utilizing a closed loop system. Drill cuttings will be properly disposed of into steel tanks and taken to an NMCOD-approved disposal facility.

8. Ancillary facilities

- a. No ancillary facilities will be needed for this proposed project.

9. Well Site Layout

- a. The proposed drilling pad was staked and surveyed by a professional surveyor. The attached survey plat of the well site depicts the drilling pad layout as staked.
- b. Attached are rig layout and a site layout diagrams.
- c. Topsoil Salvaging:
Grass, forbs, and small woody vegetation, such as sagebrush will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respread evenly on the site following topsoil resspreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

10. Plans for Surface Reclamation

- a. Reclamation Objectives:
 - i. The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.
 - ii. The long-term objective of final reclamation is to return the land to a condition approximating that which existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity

- iii. The BLM will be notified at least 3 days prior to commencement of any reclamation procedures.
 - iv. If circumstances allow, interim reclamation and/or final reclamation actions will be completed no later than 6 months from when the final well on the location has been completed or plugged. We will request written permission from the BLM if more time is needed.
- b. Interim Reclamation
- i. Interim reclamation will be performed on the well site after well #4H, the second planned well on this location, has been drilled and completed. An interim reclamation plat is attached.
 - ii. Within 30 days of well completion, the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production.
 - iii. In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
 - iv. The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim 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: Constructed slopes may be much steeper during drilling, but will be recontoured to above ratios during interim reclamation.
 - v. Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
 - vi. Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.
 - vii. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.
- c. Final Reclamation (well pad, buried pipelines, etc.)
- i. Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.
 - ii. All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
 - iii. 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. Topsoil that was spread over the interim reclamation

areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

- iv. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BLM seed mixture, free of noxious weeds. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
- v. Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.
- vi. All unused equipment and structures including pipelines, electric line poles, tanks, etc. that serviced the well will be removed.
- vii. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

11. Surface Ownership

- a. The surface ownership of the proposed project is federal.
Surface Owner: BLM
- b. A surface use agreement was obtained from the BLM regarding the proposed project.
- c. A good faith effort will be made to provide a copy of the APD Surface Use Plan of Operations to the private surface owner.

12. Archaeological, Paleontology & Historical Sites

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area if such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible of the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

13. Noxious Weeds

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

14. Special Requirement(s)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed to except between 3:00am and 9:00am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching:

Upon the plugging and subsequent abandonment of the well, the well marker will be installed at the ground level on a plate containing the pertinent information for the plugged well. Or more installation details, contact the Carlsbad Field Office at 575-234-5972

Communitization Agreement

A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

15. Other Information

- a. No other information is needed at this time.

16. Maps and Diagrams

- a. Land Survey Plat
- b. Wells Within One Mile Radius of the PSHL and PBHL
- c. Well Site Diagram
- d. Interim Reclamation with battery and pipeline
- e. Rig Layout Diagram
- f. Closed Loop Diagram