

Form 3160-3  
(June 2015)FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

|  |  |   |  |
|--|--|---|--|
| 1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER<br>1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other<br>1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone |  | 5. Lease Serial No.<br><br>6. If Indian, Allottee or Tribe Name<br><br>7. If Unit or CA Agreement, Name and No.<br><br>8. Lease Name and Well No.   |  |
| 2. Name of Operator  |  | 9. API Well No.   |  |
| 3a. Address  |  | 3b. Phone No. (include area code)   |  |
| 4. Location of Well (Report location clearly and in accordance with any State requirements. *)<br>At surface<br>At proposed prod. zone   |  | 10. Field and Pool, or Exploratory<br><br>11. Sec., T. R. M. or Blk. and Survey or Area   |  |
| 14. Distance in miles and direction from nearest town or post office*  |  | 12. County or Parish  |  |
| 13. State  |  |   |  |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)  |  | 16. No of acres in lease  |  |
| 17. Spacing Unit dedicated to this well  |  |   |  |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.   |  | 19. Proposed Depth  |  |
| 20. BLM/BIA Bond No. in file   |  |   |  |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)  |  | 22. Approximate date work will start*   |  |
| 23. Estimated duration   |  |   |  |
| 24. Attachments  |  |   |  |
| The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)   |  |   |  |
| 1. Well plat certified by a registered surveyor.<br>2. A Drilling Plan.<br>3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).  |  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).<br>5. Operator certification.<br>6. Such other site specific information and/or plans as may be requested by the BLM. |  |
| 25. Signature  |  | Name (Printed/Typed)  |  |
| Title  |  | Date  |  |
| Approved by (Signature)  |  | Name (Printed/Typed)  |  |
| Title  |  | Office  |  |
| Application approval 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.<br>Conditions of approval, if any, are attached.  |  |   |  |
| Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.   |  |   |  |

(Continued on page 2)

\*(Instructions on page 2)



Approval Date: 12/15/2023

## INSTRUCTIONS

**GENERAL:** This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

**ITEM I:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

**ITEM 4:** Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

**ITEM 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

**ITEMS 15 AND 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

**ITEM 22:** Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

**ITEM 24:** If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

## NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

**PRINCIPAL PURPOSES:** The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

**ROUTINE USE:** Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

**EFFECT OF NOT PROVIDING INFORMATION:** Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM connects this information to an evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

## Additional Operator Remarks

### Location of Well

0. SHL: NWNW / 148 FNL / 710 FWL / TWSP: 20S / RANGE: 29E / SECTION: 27 / LAT: 32.551285 / LONG: -104.069157 ( TVD: 0 feet, MD: 0 feet )  
PPP: NENW / 654 FNL / 2629 FWL / TWSP: 20S / RANGE: 29E / SECTION: 27 / LAT: 32.5497949 / LONG: -104.0630104 ( TVD: 9591 feet, MD: 10058 feet )  
PPP: NWNW / 657 FNL / 185 FWL / TWSP: 20S / RANGE: 29E / SECTION: 26 / LAT: 32.5497747 / LONG: -104.053788 ( TVD: 9626 feet, MD: 12900 feet )  
PPP: NWNW / 658 FNL / 2504 FEL / TWSP: 20S / RANGE: 29E / SECTION: 26 / LAT: 32.5497557 / LONG: -104.0453506 ( TVD: 9658 feet, MD: 15500 feet )  
PPP: NWNW / 660 FNL / 95 FWL / TWSP: 20S / RANGE: 29E / SECTION: 25 / LAT: 32.5497361 / LONG: -104.0369132 ( TVD: 9690 feet, MD: 18100 feet )  
BHL: NENE / 460 FNL / 20 FEL / TWSP: 20S / RANGE: 29E / SECTION: 25 / LAT: 32.5503389 / LONG: -104.0200285 ( TVD: 9753 feet, MD: 22844 feet )

### BLM Point of Contact

Name: Candy Vigil  
Title: LIE  
Phone: (575) 234-5982  
Email: cvigil@blm.gov

CONFIDENTIAL

### **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

CONFIDENTIAL



**PECOS DISTRICT  
SURFACE USE  
CONDITIONS OF APPROVAL**

**DOI-BLM-NM-P020-2022-0195-EA  
Devon Energy Production Company, L.P.  
Prairie Fire 27 MW  
Lease # 135241**

**TABLE OF CONTENTS**

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☐ **Special Requirements**
  - Watershed
  - Cave/Karst
  - Potash
- ☐ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☐ **Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
  - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**

## **I. GENERAL PROVISIONS**

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## **II. PERMIT EXPIRATION**

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See information below discussing NAGPRA.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

#### **IV. 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.



## **V. SPECIAL REQUIREMENT(S)**

### **Watershed:**

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The topsoil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

### **BURIED/SURFACE LINE(S):**

When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

### **ELECTRIC LINE(S):**

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

### **Cave/Karst Surface Mitigation**

The following stipulations will be applied to minimize impacts during construction, drilling and production:

**Construction:****General Construction:**

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

**Pad Construction:**

- The pad will be constructed and leveled by adding the necessary fill and caliche – no blasting.
- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised (i.e. an access road crossing the berm cannot be lower than the berm height).
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

**Tank Battery Construction:**

- The pad will be constructed and leveled by adding the necessary fill and caliche – no blasting.
- All tank battery locations and facilities will be lined and bermed.



- The liner should be at least 20 mil in thickness and installed with a 4 oz. felt backing, or equivalent, to prevent tears or punctures.
- Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

**Road Construction:**

- Turnout ditches and drainage leadoffs will not be constructed in such a manner as to alter the natural flow of water into or out of cave or karst features.
- Special restoration stipulations or realignment may be required if subsurface features are discovered during construction.

**Buried Pipeline/Cable Construction:**

- Rerouting of the buried line(s) may be required if a subsurface void is encountered during construction to minimize the potential subsidence/collapse of the feature(s) as well as the possibility of leaks/spills entering the karst drainage system.

**Powerline Construction:**

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems.
- Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- Special restoration stipulations or realignment may be required if subsurface voids are encountered.

**Surface Flowlines Installation:**

- Flowlines will be routed around sinkholes and other karst features to minimize the possibility of leaks/spills from entering the karst drainage system.

**Leak Detection System:**

- A method of detecting leaks is required. The method could incorporate gauges to measure loss, siting valves and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present.
- A leak detection plan will be submitted to BLM that incorporates an automatic shut off system (see below) to minimize the effects of an undesirable event that could negatively sensitive cave/karst resources.
- Well heads, pipelines (surface and buried), storage tanks, and all supporting equipment should be monitored regularly after installation to promptly identify and fix leaks.

**Automatic Shut-off Systems:**

- Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

## **Cave/Karst Subsurface Mitigation**

The following stipulations will be applied to protect cave/karst and groundwater concerns:

### **Closed Loop System:**

- A closed loop system using steel tanks will be utilized during drilling – no pits
- All fluids and cuttings will be hauled off-site and disposed of properly at an authorized site

### **Rotary Drilling with Fresh Water:**

- Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

### **Directional Drilling:**

- The kick off point for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

### **Lost Circulation:**

- ALL lost circulation zones between surface and the base of the cave occurrence zone will be logged and reported in the drilling report.
- If a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, regardless of the type of drilling machinery used, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

### **Abandonment Cementing:**

- Additional plugging conditions of approval may be required upon well abandonment in high and medium karst potential occurrence zones.
- The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

### **Pressure Testing:**

- The operator will perform annual pressure monitoring on all casing annuli and reported in a sundry notice.
- If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

## **Potash Resources**

Lessees must comply with the 2012 Secretarial Potash Order. The Order is designed to manage the efficient development of oil, gas, and potash resources. Section 6 of the Order provides general provisions which must be followed to minimize conflict between the industries and ensure the safety of operations.



To minimize impacts to potash resources, the proposed well is confined within the boundaries of the established Prairie Fire 25 26 Drill Island.

## **VI. CONSTRUCTION**

### **A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

### **B. TOPSOIL**

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

### **C. CLOSED LOOP SYSTEM**

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

### **D. FEDERAL MINERAL MATERIALS PIT**

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

### **E. WELL PAD SURFACING**



Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

#### **F. EXCLOSURE FENCING (CELLARS & PITS)**

##### **Exclosure Fencing**

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

#### **G. ON LEASE ACCESS ROADS**

##### **Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

##### **Surfacing**

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

##### **Crowning**

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

##### **Ditching**

Ditching shall be required on both sides of the road.

### Turnouts

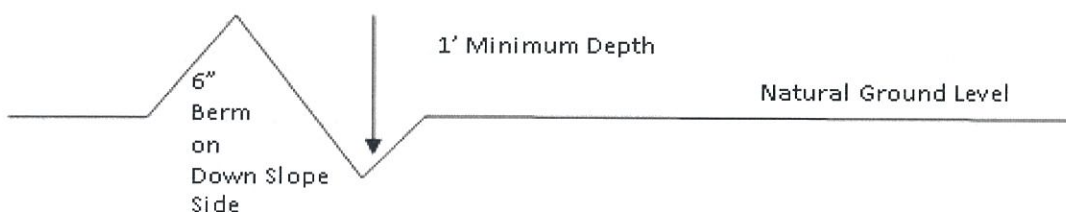
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

### Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outslowing and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

**Cross Section of a Typical Lead-off Ditch**



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

### Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

### Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

### Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

**Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

**Construction Steps**

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

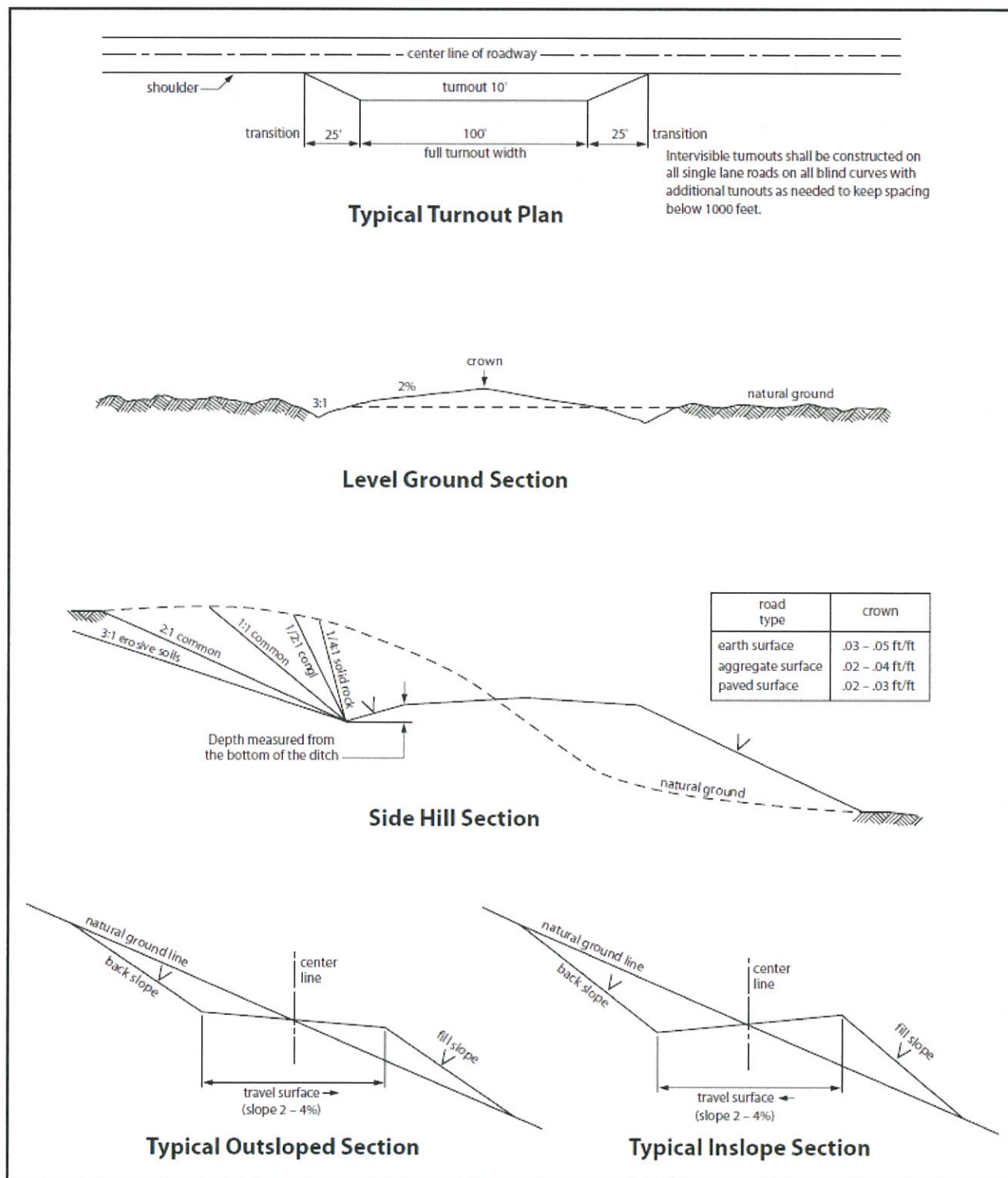


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.



## VII. PRODUCTION (POST DRILLING)

### A. WELL STRUCTURES & FACILITIES

#### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

#### **Exclosure Netting (Open-top Tanks)**

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

#### **Chemical and Fuel Secondary Containment and Exclosure Screening**

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

#### **Open-Vent Exhaust Stack Exclosures**

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

#### **Containment Structures**

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

#### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

### **B. PIPELINES**

#### **STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES**

**A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.**

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 *et seq.* (1982) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant (*see* 40 CFR, Part 702-799 and in particular, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601, *et seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way Holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way Holder on the Right-of-Way. This provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.
4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:



- a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;
- b. Activities of other parties including, but not limited to:
  - (1) Land clearing
  - (2) Earth-disturbing and earth-moving work
  - (3) Blasting
  - (4) Vandalism and sabotage;
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of Holder, regardless of fault. Upon failure of Holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he/she deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of Holder. Such action by the Authorized Officer shall not relieve Holder of any responsibility as provided herein.

6. All construction and maintenance activity shall be confined to the authorized right-of-way width of 30 feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.

8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 6 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.
14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.
15. The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 16 for more information.
17. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.
18. 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, powerline 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.
19. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

## BURIED PIPELINE STIPULATIONS



A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.
5. All construction and maintenance activity will be confined to the authorized right-of-way.
6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:
- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
  - Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
  - The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)
8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.
9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.
11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

|                        |                             |
|------------------------|-----------------------------|
| (X) seed mixture 1     | ( ) seed mixture 3          |
| ( ) seed mixture 2     | ( ) seed mixture 4          |
| ( ) seed mixture 2/LPC | ( ) Aplomado Falcon Mixture |



13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 17 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

17. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting,

excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

18. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

19. 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 associated roads, 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.

20. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

## C. ELECTRIC LINES

### STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

**A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.**

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that



are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 11 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

11. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

12. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

13. Special Stipulations:

For reclamation remove poles, lines, transformer, etc. and dispose of properly.  
Fill in any holes from the poles removed.

## VIII. INTERIM RECLAMATION



During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

## **IX. FINAL ABANDONMENT & RECLAMATION**

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

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 ground level on a plate containing the pertinent information for the plugged well.

**Seed Mixture 1 for Loamy Sites**

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed shall be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre shall be doubled. The seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

**Species**

|   | <u>lb/acre</u> |
|---|----------------|
| Plains lovegrass ( <i>Eragrostis intermedia</i> )   | 0.5            |
| Sand dropseed ( <i>Sporobolus cryptandrus</i> )     | 1.0            |
| Sideoats grama ( <i>Bouteloua curtipendula</i> )    | 5.0            |
| Plains bristlegrass ( <i>Setaria macrostachya</i> ) | 2.0            |

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed



**PECOS DISTRICT  
DRILLING CONDITIONS OF APPROVAL**

|                         |   |
|-------------------------|---|
| <b>OPERATOR'S NAME:</b> | <b>Devon Energy Production Company LP</b> |
| <b>LEASE NO.:</b>       | <b>NMNM83068</b>                          |
| <b>LOCATION:</b>        | Section 27, T.20 S., R.29 E., NMPM        |
| <b>COUNTY:</b>          | Eddy County, New Mexico                   |

|                              |  |
|------------------------------|--|
| <b>WELL NAME &amp; NO.:</b>  | <b>Prairie Fire 27-25 Fed Com 331H</b> |
| <b>SURFACE HOLE FOOTAGE:</b> | 178'/N & 710'/W                        |
| <b>BOTTOM HOLE FOOTAGE:</b>  | 1220'/N & 20'/E                        |
| <b>ATS/API ID:</b>           | <b>ATS-21-2486</b>                     |
| <b>APD ID:</b>               | <b>10400076839</b>                     |
| <b>Sundry ID:</b>            | N/a                                    |

|                              |  |
|------------------------------|--|
| <b>WELL NAME &amp; NO.:</b>  | <b>Prairie Fire 27-25 Fed Com 621H</b> |
| <b>SURFACE HOLE FOOTAGE:</b> | 148'/N & 710'/W                        |
| <b>BOTTOM HOLE FOOTAGE:</b>  | 460'/N & 20'/E                         |
| <b>ATS/API ID:</b>           | <b>ATS-21-2488</b>                     |
| <b>APD ID:</b>               | <b>10400077077</b>                     |
| <b>Sundry ID:</b>            | N/a                                    |

|                              |  |
|------------------------------|--|
| <b>WELL NAME &amp; NO.:</b>  | <b>Prairie Fire 27-25 Fed Com 622H</b> |
| <b>SURFACE HOLE FOOTAGE:</b> | 208'/N & 710'/W                        |
| <b>BOTTOM HOLE FOOTAGE:</b>  | 1980'/N & 20'/E                        |
| <b>ATS/API ID:</b>           | <b>ATS-21-2489</b>                     |
| <b>APD ID:</b>               | <b>10400077101</b>                     |
| <b>Sundry ID:</b>            | N/a                                    |

COA

|                               |   |   |   |
|-------------------------------|---|---|---|
| H2S                           | No  |   |   |
| Potash                        | Secretary   |   |   |
| Cave/Karst Potential          | High  |   |   |
| Cave/Karst Potential          | <input type="checkbox"/> Critical                 |   |   |
| Variance                      | <input checked="" type="checkbox"/> None          | <input checked="" type="checkbox"/> Flex Hose | <input checked="" type="checkbox"/> Other |
| Wellhead                      | Conventional and Multibowl                        |   |   |
| Other                         | <input checked="" type="checkbox"/> 4 String      | Capitan Reef<br>Int 2                         | <input type="checkbox"/> WIPP             |
| Other                         | Pilot Hole<br>None                                | <input type="checkbox"/> Open Annulus         |   |
| Cementing                     | Contingency Squeeze<br>None                       | Echo-Meter<br>Int 2                           | Primary Cement Squeeze<br>None            |
| Special Requirements          | <input type="checkbox"/> Water Disposal/Injection | <input checked="" type="checkbox"/> COM       | <input type="checkbox"/> Unit             |
| Special Requirements          | <input type="checkbox"/> Batch Sundry             |   |   |
| Special Requirements Variance | <input checked="" type="checkbox"/> Break Testing | <input type="checkbox"/> Offline Cementing    | <input type="checkbox"/> Casing Clearance |

## A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet **43 CFR part 3170 Subpart 3176**, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

## B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **350 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be **17 1/2** inch in diameter.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of

- six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **10-3/4** inch intermediate casing shall be set at approximately **1750 feet** is:
- Cement to surface. If cement does not circulate see B.1.a, c-d above.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.**
3. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:

**Option 1 (Single Stage):**

- Cement to surface. If cement does not circulate see B.1.a, c-d above.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.**

**Option 2:**

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the **Capitan Reef at 1810'** (357 sxs Class H/C+ additives).
- b. Second stage:
  - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. (Squeeze 70 sxs Class C)  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.**

Operator has proposed to pump down 10-3/4" X 8-5/8" annulus after primary cementing stage. **Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus Or operator shall run a CBL from TD of the 8-5/8" casing to surface after the second stage BH to verify TOC.**

Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad.

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

- ❖ In High Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- ❖ In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- ❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

4. The minimum required fill of cement behind the 5-1/2 inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef. Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.**

### C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2.

#### **Option 1:**

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe

shall be **3000 (3M) psi. Annular which shall be tested to 2100 (70% Working Pressure) psi.**

- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **10-3/4** intermediate casing shoe shall be **3000 (3M) psi. Annular which shall be tested to 2100 (70% Working Pressure) psi.**
- c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **8-5/8** inch intermediate casing shoe shall be **5000 (5M) psi.**

#### **Option 2:**

- a. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi.**
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

#### **D. SPECIAL REQUIREMENT (S)**

##### **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in **43 CFR part 3170 Subpart 3171**

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

**BOPE Break Testing Variance (Approved)**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted **(575-361-2822 Eddy County)** 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at **21**-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

## GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Eddy County

**EMAIL** or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

**[BLM\\_NM\\_CFO\\_DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV)**

(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,  
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a

digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.



8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after

installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR**

**part 3170 Subpart 3172.**

**C. DRILLING MUD**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

**D. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

LVO 11/15/2023

Form 3160-3  
(June 2015)FORM APPROVED  
OMB No. 1004-0137  
Expires: January 31, 2018

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

|  |  |   |  |
|--|--|---|--|
| 1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER<br>1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other<br>1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone |  | 5. Lease Serial No.<br><br>6. If Indian, Allottee or Tribe Name<br><br>7. If Unit or CA Agreement, Name and No.<br><br>8. Lease Name and Well No.   |  |
| 2. Name of Operator  |  | 9. API Well No.   |  |
| 3a. Address  |  | 3b. Phone No. (include area code)   |  |
| 4. Location of Well (Report location clearly and in accordance with any State requirements. *)<br>At surface<br>At proposed prod. zone   |  | 10. Field and Pool, or Exploratory<br><br>11. Sec., T. R. M. or Blk. and Survey or Area   |  |
| 14. Distance in miles and direction from nearest town or post office*  |  | 12. County or Parish  |  |
| 13. State  |  |   |  |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)  |  | 16. No of acres in lease  |  |
| 17. Spacing Unit dedicated to this well  |  |   |  |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.   |  | 19. Proposed Depth  |  |
| 20. BLM/BIA Bond No. in file   |  |   |  |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)  |  | 22. Approximate date work will start*   |  |
| 23. Estimated duration   |  |   |  |
| 24. Attachments  |  |   |  |
| The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)   |  |   |  |
| 1. Well plat certified by a registered surveyor.<br>2. A Drilling Plan.<br>3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).  |  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).<br>5. Operator certification.<br>6. Such other site specific information and/or plans as may be requested by the BLM. |  |
| 25. Signature  |  | Name (Printed/Typed)  |  |
| Title  |  | Date  |  |
| Approved by (Signature)  |  | Name (Printed/Typed)  |  |
| Title  |  | Date  |  |
| Office   |  |   |  |
| Application approval 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.<br>Conditions of approval, if any, are attached.  |  |   |  |
| Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.   |  |   |  |

(Continued on page 2)

\*(Instructions on page 2)



Approval Date: 12/15/2023

## Additional Operator Remarks

### Location of Well

0. SHL: NWNW / 148 FNL / 710 FWL / TWSP: 20S / RANGE: 29E / SECTION: 27 / LAT: 32.551285 / LONG: -104.069157 ( TVD: 0 feet, MD: 0 feet )  
PPP: NENW / 654 FNL / 2629 FWL / TWSP: 20S / RANGE: 29E / SECTION: 27 / LAT: 32.5497949 / LONG: -104.0630104 ( TVD: 9591 feet, MD: 10058 feet )  
PPP: NWNW / 657 FNL / 185 FWL / TWSP: 20S / RANGE: 29E / SECTION: 26 / LAT: 32.5497747 / LONG: -104.053788 ( TVD: 9626 feet, MD: 12900 feet )  
PPP: NWNW / 658 FNL / 2504 FEL / TWSP: 20S / RANGE: 29E / SECTION: 26 / LAT: 32.5497557 / LONG: -104.0453506 ( TVD: 9658 feet, MD: 15500 feet )  
PPP: NWNW / 660 FNL / 95 FWL / TWSP: 20S / RANGE: 29E / SECTION: 25 / LAT: 32.5497361 / LONG: -104.0369132 ( TVD: 9690 feet, MD: 18100 feet )  
BHL: NENE / 460 FNL / 20 FEL / TWSP: 20S / RANGE: 29E / SECTION: 25 / LAT: 32.5503389 / LONG: -104.0200285 ( TVD: 9753 feet, MD: 22844 feet )

### BLM Point of Contact

Name: Candy Vigil  
Title: LIE  
Phone: (575) 234-5982  
Email: cvigil@blm.gov

CONFIDENTIAL

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
PhonE: (575) 393-6161 Fax: (575) 393-0720

**District II**  
811 S. First St., Artesia, NM 88210  
PhonE: (575) 748-1283 Fax: (575) 748-9720

**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
PhonE: (505) 334-6178 Fax: (505) 334-6170

**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
PhonE: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102

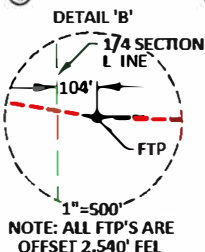
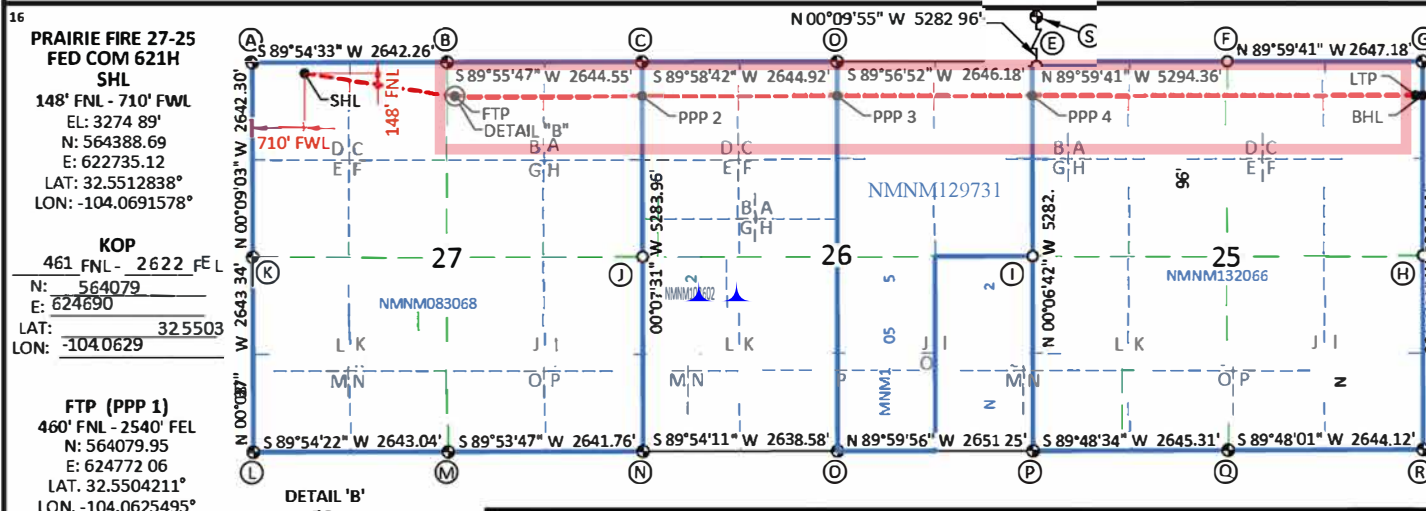
Revised August 1, 2011

Submit one copy to  
appropriate District Office

☐ AMENDED REPORT
**WELL LOCATION AND ACREAGE DEDICATION PLAT**

|   |               |   |               |  |                                   |
|---|---------------|---|---------------|--|-----------------------------------|
| <sup>1</sup> API Number   |               | <sup>2</sup> Pool Code<br>[98357]                                   |               | <sup>3</sup> Pool Name<br>WC 20S 29E 23: WOLF CAMP |                                   |
| <sup>4</sup> Property Code  |               | <sup>5</sup> Property Name<br>PRAIRIE FIRE 27-25 FED COM            |               |  | <sup>6</sup> Well Number<br>621H  |
| <sup>7</sup> OGRID No.<br>6137                                      |               | <sup>8</sup> Operator Name<br>DEVON ENERGY PRODUCTION COMPANY, L.P. |               |  | <sup>9</sup> Elevation<br>3274.89 |
| <b><sup>10</sup> Surface Location</b>                               |               |   |               |  |                                   |
| UL or lot no.<br>D  | Section<br>27 | Township<br>20-S  | Range<br>29-E | Lot Idn<br>N/A                                     | Feet from the<br>148              |
| North/South line<br>NORTH   |               | Feet from the<br>710  |               | East/West line<br>WEST                             |                                   |
| County<br>EDDY  |               |   |               |  |                                   |
| <b><sup>11</sup> Bottom Hole Location If Different From Surface</b> |               |   |               |  |                                   |
| UL or lot no.<br>A  | Section<br>25 | Township<br>20-S  | Range<br>29-E | Lot Idn<br>N/A                                     | Feet from the<br>460              |
| North/South line<br>NORTH   |               | Feet from the<br>20   |               | East/West line<br>EAST                             |                                   |
| County<br>EDDY  |               |   |               |  |                                   |
| <sup>12</sup> Dedicated Acres<br>400                                |               | <sup>13</sup> Joint or Infill                                       |               | <sup>14</sup> Consolidation Code                   |                                   |
| <sup>15</sup> Order No.   |               |   |               |  |                                   |

No allowable will be assigned to this completion until all interests have been consolidated  
or a non-standard unit has been approved by the division.



| LEGEND        |  |
|---------------|--|
| SECTION LINE  | WELL PATH                              |
| 1/4 SEC. LINE | LEASE LINE                             |
| 1/4 SEC. LINE | LEASE ID NUMBER                        |
| NMNM01010     | FOUND USGLO B.C.<br>ON 1" PIPE, "1916" |
|               | CALCULATED POINT                       |

**17 OPERATOR CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: Chelsey Green Date: 05/23/23  
Printed Name: Chelsey Green  
E-mail Address: chelsey.green@devon.com

**NOTES:**

1. BASIS OF BEARINGS, COORDINATES AND DISTANCES ARE A LAMBERT CONICAL PROJECTION OF THE NEW MEXICO COORDINATE SYSTEM, STATE PLANE GRID, NAD 83, NEW MEXICO EAST (3001) WITH A CONVERGENCE ANGLE OF -0°09'37.47" AND A COMBINED SCALE FACTOR OF 1.000237768 BASED ON CONTROL POINT CP FITZ BOOSTER AT N 556917.441 E 633268.606.  
2. DISTANCES DEPICTED HEREON ARE REPORTED AS GROUND DISTANCES IN U.S. SURVEY FEET USING A COMBINED SCALE FACTOR OF 1.000237768.  
3. ELEVATIONS SHOWN ARE EXISTING GROUND UNLESS OTHERWISE NOTED.

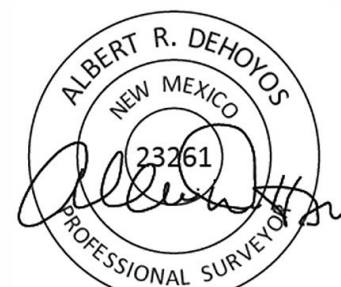
**18 SURVEYOR CERTIFICATION**

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

05/11/2023

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate No. 23261 Albert Dehoyos  
Drawn by: JMA Checked by: ARD Date: 05/18/23

Intent ☒ As Drilled ☐

|   |  |                     |
|---|--|---------------------|
| API #   |  |                     |
| Operator Name:<br>DEVON ENERGY PRODUCTION COMPANY, L.P. | Property Name:<br>PRAIRIE FIRE 27-25 FED COM | Well Number<br>621H |

### Kick Off Point (KOP)

| UL       | Section | Township | Range | Lot | Feet         | From N/S | Feet | From E/W | County |
|----------|---------|----------|-------|-----|--------------|----------|------|----------|--------|
| B        | 27      | 20S      | 29E   |     | 461          | NORTH    | 2622 | EAST     | EDDY   |
| Latitude |         |          |       |     | Longitude    |          |      |          | NAD    |
| 32.5503  |         |          |       |     | -104.0625495 |          |      |          | 83     |

### First Take Point (FTP)

| UL          | Section | Township | Range | Lot | Feet          | From N/S | Feet | From E/W | County |
|-------------|---------|----------|-------|-----|---------------|----------|------|----------|--------|
| B           | 27      | 20-S     | 29-E  | N/A | 460           | NORTH    | 2540 | EAST     | EDDY   |
| Latitude    |         |          |       |     | Longitude     |          |      |          | NAD    |
| 32.5504211° |         |          |       |     | -104.0625495° |          |      |          | 83     |

### Last Take Point (LTP)

| UL          | Section | Township | Range | Lot | Feet          | From N/S | Feet | From E/W | County |
|-------------|---------|----------|-------|-----|---------------|----------|------|----------|--------|
| A           | 25      | 20-S     | 29-E  | N/A | 460           | NORTH    | 100  | EAST     | EDDY   |
| Latitude    |         |          |       |     | Longitude     |          |      |          | NAD    |
| 32.5503396° |         |          |       |     | -104.0202881° |          |      |          | 83     |

Is this well the defining well for the Horizontal Spacing Unit? ☒

Is this well an infill well? ☐ N

If infill is yes provide API if available, Operator name and well number for Defining well for Horizontal Spacing Unit.

|                |                |             |
|----------------|----------------|-------------|
| API #          |                |             |
| Operator Name: | Property Name: | Well Number |

KZ 06/29/2018



State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** DEVON ENERGY PRODUCTION COMPANY, LP **OGRID:** 6137 **Date:** 12 / 18 / 2023

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| Well Name      | API | ULSTR | Footages | Anticipated<br>Oil BBL/D | Anticipated<br>Gas MCF/D | Anticipated<br>Produced Water<br>BBL/D |
|----------------|-----|-------|----------|--------------------------|--------------------------|--|
| See attachment |     |       |          |                          |                          |  |
|                |     |       |          |                          |                          |  |

**IV. Central Delivery Point Name:** See attachment [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

| Well Name      | API | Spud Date | TD Reached<br>Date | Completion<br>Commencement Date | Initial Flow<br>Back Date | First Production<br>Date |
|----------------|-----|-----------|--------------------|---------------------------------|---------------------------|--------------------------|
| See attachment |     |           |                    |                                 |                           |                          |
|                |     |           |                    |                                 |                           |                          |

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.



### Section 1 - Plan Description

[illegible][illegible]

## **Section 2 – Enhanced Plan**

### **EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

#### **IX. Anticipated Natural Gas Production:**

| Well | API | Anticipated Average Natural Gas Rate MCF/D | Anticipated Volume of Natural Gas for the First Year MCF |
|------|-----|--|--|
|      |     |  |  |
|      |     |  |  |

#### **X. Natural Gas Gathering System (NGGS):**

| Operator | System | ULSTR of Tie-in | Anticipated Gathering Start Date | Available Maximum Daily Capacity of System Segment Tie-in |
|----------|--------|-----------------|----------------------------------|---|
|          |        |                 |                                  |   |
|          |        |                 |                                  |   |

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

D Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:


(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.



I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

|  |
|--|
| Signature:      |
| Printed Name: Jeff Walla   |
| Title: Surface Land and Regulatory Manager   |
| E-mail Address: jeff.walla@dvn.com   |
| Date: 12-18-2023   |
| Phone: 405-552-8154  |
| <b>OIL CONSERVATION DIVISION</b><br><b>(Only applicable when submitted as a standalone form)</b> |
| Approved By:   |
| Title:   |
| Approval Date:   |
| Conditions of Approval:  |



## VI. Separation Equipment

Devon Energy Production Company, L.P. utilizes a "stage separation" process in which oil and gas separation is carried out through a series of separators operating at successively reduced pressures. Hydrocarbon liquids are produced into a high-pressure inlet separator, then carried through one or more lower pressure separation vessels before entering the storage tanks. The purpose of this separation process is to attain maximum recovery of liquid hydrocarbons from the fluids and allow maximum capture of produced gas into the sales pipeline. Devon utilizes a series of Low-Pressure Compression units to capture gas off the staged separation and send it to the sales pipeline. This process minimizes the amount of flash gas that enters the end-stage storage tanks that is subsequently vented or flared.



## VII. Operational Practices

Devon Energy Production Company, L. P. will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

- During drilling operations, Devon will utilize flares and/or combustors to capture and control natural gas, where technically feasible. If flaring is deemed technically in-feasible, Devon will employ best management practices to minimize or reduce venting to the extent possible.
- During completions operations, Devon will utilize Green Completion methods to capture gas produced during well completions that is otherwise vented or flared. If capture is technically in-feasible, flares and/or combustors will be used to capture and control flow back fluids entering into frac tanks during initial flowback. Upon indication of first measurable hydrocarbon volumes, Devon will turn operations to onsite separation vessels and flow to the gathering pipeline.
- During production operations, Devon will take every practical effort to minimize waste of natural gas through venting and flaring by:
  - Designing and constructing facilities in a manner consistent to achieve maximum capture and control of hydrocarbon liquids & produced gas
  - Utilizing a closed-loop capture system to collect and route produced gas to sales line via low pressure compression, or to a flare/combustor
  - Flaring in lieu of venting, where technically feasible
  - Utilizing auto-ignitors or continuous pilots, with thermocouples connected to Scada, to quickly detect and resolve issues related to malfunctioning flares/combustors
  - Employ the use of automatic tank gauging to minimize storage tank venting during loading events
  - Installing air-driven or electric-driven pneumatics & combustion engines, where technically feasible to minimize venting to the atmosphere
  - Confirm equipment is properly maintained and repaired through a preventative maintenance and repair program to ensure equipment meets all manufacturer specifications
  - Conduct and document AVO inspections on the frequency set forth in Part 27 to detect and repair any onsite leaks as quickly and efficiently as is feasible





#### VIII. Best Management Practices during Maintenance

Devon Energy Production Company, L.P. will utilize best management practices to minimize venting during active and planned maintenance activities. Devon is operating under guidance that production facilities permitted under NOI permits have no provisions to allow high pressure flaring and high pressure flaring is only allowed in disruption scenarios so long as the duration is less than eight hours. When technically feasible, flaring during maintenance activities will be utilized in lieu of venting to the atmosphere. Devon will work with third-party operators during scheduled maintenance of downstream pipeline or processing plants to address those events ahead of time to minimize venting. Actions considered include identifying alternative capture approaches or planning to temporarily reduce production or shut in the well to address these circumstances.

## Prairie Fire 27-25 Fed Com 621H

## 1. Geologic Formations

|               |       |                              |     |
|---------------|-------|------------------------------|-----|
| TVD of target | 9752  | Pilot hole depth             | N/A |
| MD at TD:     | 22844 | Deepest expected fresh water |     |

## Basin

| Formation            | Depth<br>(TVD)<br>from KB | Water/Mineral<br>Bearing/Target<br>Zone? | Hazards* |
|----------------------|---------------------------|--|----------|
| Rustler              | 284                       |  |          |
| Salt                 | 449                       |  |          |
| Base of Salt         | 1040                      |  |          |
| Capitan Reef Top     | 1810                      |  |          |
| Delaware             | 3868                      |  |          |
| Cherry Canyon        | 4189                      |  |          |
| Brushy Canyon        | 4780                      |  |          |
| 1st Bone Spring Lime | 6360                      |  |          |
| Bone Spring 1st      | 7400                      |  |          |
| Bone Spring 2nd      | 8157                      |  |          |
| 3rd Bone Spring Lime | 8416                      |  |          |
| Bone Spring 3rd      | 9141                      |  |          |
| Wolfcamp             | 9591                      |  |          |
|                      |                           |  |          |
|                      |                           |  |          |
|                      |                           |  |          |
|                      |                           |  |          |
|                      |                           |  |          |

\*H2S, water flows, loss of circulation, abnormal pressures, etc.

## Prairie Fire 27-25 Fed Com 621H

**2. Casing Program (Primary Design)**

| Hole Size | Csg. Size | Wt (PPF) | Grade  | Conn      | Top (MD) | Bottom (MD) | Top (TVD) | Bottom (TVD) |
|-----------|-----------|----------|--------|-----------|----------|-------------|-----------|--------------|
| 17 1/2    | 13 3/8    | 54.5     | J-55   | BTC       | 0.0      | 309 MD      | 0         | 309 TVD      |
| 12 1/4    | 10 3/4    | 45.5     | J-55   | BTC SCC   | 0.0      | 1760 MD     | 0         | 1760 TVD     |
| 9 7/8     | 8 5/8     | 32.0     | P110EC | Sprint FJ | 0        | 3918 MD     | 0         | 3918 TVD     |
| 7 7/8     | 5 1/2     | 17.0     | P110   | DWC/C IS+ | 0        | 22844 MD    | 0         | 9752 TVD     |

- All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.
- The Rustler top will be validated via drilling parameters (i.e. reduction in ROP), and the surface casing setting depth will be revised accordingly. In addition, surface casing will be set a minimum of 25' above the top of the salt.



## Prairie Fire 27-25 Fed Com 621H

**3. Cementing Program (Primary Design)**

| Casing                           | # Sks | TOC  | Wt.<br>(lb/gal) | Yld<br>(ft3/sack) | Slurry Description                       |
|----------------------------------|-------|------|-----------------|-------------------|--|
| Surface                          | 261   | Surf | 13.2            | 1.44              | Lead: Class C Cement + additives         |
| Int                              | 92    | Surf | 9               | 3.27              | Lead: Class C Cement + additives         |
|                                  | 101   | 1260 | 13.2            | 1.44              | Tail: Class H / C + additives            |
| Int 1                            | 52    | Surf | 9               | 3.27              | Lead: Class C Cement + additives         |
|                                  | 255   | 1760 | 13.2            | 1.44              | Tail: Class H / C + additives            |
| Int 1<br>Intermediate<br>Squeeze | 75    | Surf | 9               | 1.44              | Squeeze Lead: Class C Cement + additives |
|                                  | 92    | Surf | 9               | 3.27              | Lead: Class C Cement + additives         |
|                                  | 101   | 1760 | 13.2            | 1.44              | Tail: Class H / C + additives            |
| Production                       | 436   | 1760 | 9               | 3.27              | Lead: Class H /C + additives             |
|                                  | 1788  | 9332 | 13.2            | 1.44              | Tail: Class H / C + additives            |

Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the intermediate 1 casing string with the first stage being pumped conventionally with the calculated top of cement at the Capitan Reef and the second stage performed as a bradenhead squeeze with planned cement from the Capitan Reef to surface. The final cement top will be verified by Echo-meter. Devon will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

| Casing String                   | % Excess |
|---------------------------------|----------|
| Surface                         | 50%      |
| Intermediate and Intermediate 1 | 30%      |
| Intermediate 1 (Two Stage)      | 25%      |
| Prod                            | 10%      |

## Prairie Fire 27-25 Fed Com 621H

**4. Pressure Control Equipment (Four String Design)**

| BOP installed and tested before drilling which hole? |  | Size?   | Min. Required WP | Type         | ✓        | Tested to: |                                |
|--|--|---------|------------------|--------------|----------|------------|--------------------------------|
| Int  |  |         |                  | Annular      |          |            | n/a                            |
|  |  |         |                  | Blind Ram    |          |            | 500psi                         |
|  |  |         |                  | Pipe Ram     |          |            |                                |
|  |  |         |                  | Double Ram   |          |            |                                |
|  |  |         |                  | Other*       | diverter | X          |                                |
| Int 1  |  | 13-5/8" | 5M               | Annular (5M) |          | X          | 100% of rated working pressure |
|  |  |         |                  | Blind Ram    |          | X          | 5M                             |
|  |  |         |                  | Pipe Ram     |          |            |                                |
|  |  |         |                  | Double Ram   |          | X          |                                |
|  |  |         |                  | Other*       |          |            |                                |
| Production   |  | 13-5/8" | 5M               | Annular (5M) |          | X          | 100% of rated working pressure |
|  |  |         |                  | Blind Ram    |          | X          | 5M                             |
|  |  |         |                  | Pipe Ram     |          |            |                                |
|  |  |         |                  | Double Ram   |          | X          |                                |
|  |  |         |                  | Other*       |          |            |                                |
| N  | A variance is requested for the use of a diverter on the surface casing. See attached for schematic. |         |                  |              |          |            |                                |
| N  | A variance is requested to run a 5 M annular on a 10M system   |         |                  |              |          |            |                                |

By definition, the diverter will only be used to divert flow from the well and not to shut in the well. Prior to drilling out, the diverter will be tested to 250 PSI to ensure functionality.

## Prairie Fire 27-25 Fed Com 621H

**5. Mud Program (Four String Design)**

| Section        | Type            | Weight (ppg) |
|----------------|-----------------|--------------|
| Surface        | WBM             | 8.5-9        |
| Intermediate   | DBE / Cut Brine | 10-10.5      |
| Intermediate 1 | WBM             | 8.5-9        |
| Production     | OBM             | 10-10.5      |

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

|   |                             |
|---|-----------------------------|
| What will be used to monitor the loss or gain of fluid? | PVT/Pason/Visual Monitoring |
|---|-----------------------------|

**6. Logging and Testing Procedures**

| Logging, Coring and Testing |   |
|-----------------------------|---|
| X                           | Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM. |
|                             | No logs are planned based on well control or offset log information.  |
|                             | Drill stem test? If yes, explain.   |
|                             | Coring? If yes, explain.  |

| Additional logs planned |             | Interval                |
|-------------------------|-------------|-------------------------|
|                         | Resistivity | Int. shoe to KOP        |
|                         | Density     | Int. shoe to KOP        |
| X                       | CBL         | Production casing       |
| X                       | Mud log     | Intermediate shoe to TD |
|                         | PEX         |                         |

**7. Drilling Conditions**

| Condition                  | Specify what type and where? |
|----------------------------|------------------------------|
| BH pressure at deepest TVD | 5325                         |
| Abnormal temperature       | No                           |

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H<sub>2</sub>S) monitors will be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered measured values and formations will be provided to the BLM.

|   |                                 |
|---|---------------------------------|
| N | H <sub>2</sub> S is present     |
| Y | H <sub>2</sub> S plan attached. |

## Prairie Fire 27-25 Fed Com 621H

**8. Other facets of operation**

Is this a walking operation? Potentially

- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
- 3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
  - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.,
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
- 3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pa.
- 6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 7 Drilling operations will be performed with drilling rig. A that time an approved BOP stack will be nipped up and tested on the wellhead before drilling operations commences on each well.
  - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

X Directional Plan  
           Other, describe





U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT

# Drilling Plan Data Report

12/18/2023

APD ID: 10400077077

Submission Date: 07/08/2021

Highlighted data  
reflects the most  
recent changes

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: PRAIRIE FIRE 27-25 FED COM

Well Number: 621H

Well Type: OIL WELL

Well Work Type: Drill

[Show Final Text](#)

## Section 1 - Geologic Formations

| Formation ID | Formation Name   | Elevation | True Vertical | Measured Depth | Lithologies | Mineral Resources | Producing Formatio |
|--------------|------------------|-----------|---------------|----------------|-------------|-------------------|--------------------|
| 12617186     | RUSTLER          | 0         | 284           | 284            | SANDSTONE   | NONE              | N                  |
| 12617187     | TOP SALT         | -449      | 449           | 449            | SALT        | NONE              | N                  |
| 12617188     | BASE OF SALT     | -1040     | 1040          | 1040           | ANHYDRITE   | NATURAL GAS, OIL  | N                  |
| 12617189     | DELAWARE         | -3868     | 3868          | 3868           | SANDSTONE   | NATURAL GAS, OIL  | N                  |
| 12617190     | CHERRY CANYON    | -4189     | 4189          | 4189           | SANDSTONE   | NATURAL GAS, OIL  | N                  |
| 12617191     | BRUSHY CANYON    | -4780     | 4780          | 4780           | SANDSTONE   | NATURAL GAS, OIL  | N                  |
| 12617192     | BONE SPRING LIME | -6360     | 6360          | 6360           | LIMESTONE   | NATURAL GAS, OIL  | N                  |
| 12617193     | BONE SPRING 1ST  | -7400     | 7400          | 7400           | SANDSTONE   | NATURAL GAS, OIL  | N                  |
| 12617194     | BONE SPRING 2ND  | -8157     | 8157          | 8157           | SANDSTONE   | NATURAL GAS, OIL  | N                  |
| 12617195     | BONE SPRING LIME | -8416     | 8416          | 8416           | LIMESTONE   | NATURAL GAS, OIL  | N                  |
| 12617196     | BONE SPRING 3RD  | -9141     | 9141          | 9141           | SANDSTONE   | NATURAL GAS, OIL  | N                  |
| 12617197     | WOLFCAMP         | -9591     | 9591          | 9591           | SHALE       | NATURAL GAS, OIL  | Y                  |
| 12617198     | STRAWN           | -10756    | 10756         | 10756          | LIMESTONE   | NATURAL GAS, OIL  | N                  |

## Section 2 - Blowout Prevention



Commitment Runs Deep



Design Plan  
Operation and Maintenance Plan  
Closure Plan

SENM - Closed Loop Systems  
June 2010

## I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

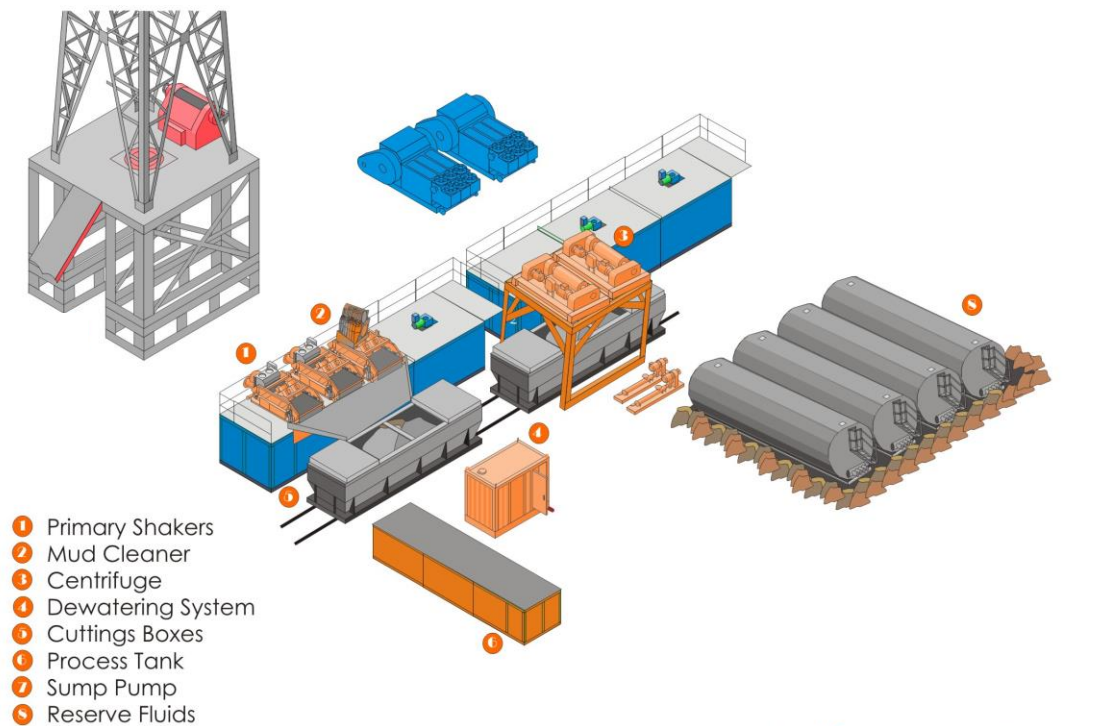
## II. Operations and Maintenance Plan

**Primary Shakers:** The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

**Mud Cleaner:** The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



## Closed Loop Schematic



**Centrifuges:** The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

**Dewatering System:** The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The



dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

*Cuttings Boxes:* Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

*Process Tank:* (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

*Sump and Sump Pump:* The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

*Reserve Fluids (Tank Farm):* A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

### **III. Closure Plan**

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

## **Devon Energy**

### **APD VARIANCE DATA**

**OPERATOR NAME:** Devon Energy

#### **1. SUMMARY OF Variance:**

Devon Energy respectfully requests approval for the following additions to the drilling plan:

1. Potential utilization of a spudder rig to pre-set surface casing.

#### **2. Description of Operations**

1. A spudder rig contractor may move in their rig to drill the surface hole section and pre-set surface casing on this well.
  - a. After drilling the surface hole section, the rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
  - b. Rig will utilize fresh water based mud to drill surface hole to TD.
2. The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
3. A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wingvalves.
  - a. A means for intervention will be maintained while the drilling rig is not over the well.
4. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
5. Drilling operation will be performed with the big rig. At that time an approved BOP stack will be nipped up and tested on the wellhead before drilling operations commences on each well.
  - a. The BLM will be contacted / notified 24 hours before the big rig moves back on to the pad with the pre-set surface casing.
6. Devon Energy will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
7. Once the rig is removed, Devon Energy will secure the wellhead area by placing a guard rail around the cellar area.

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources  
Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit Original  
to  
Appropriate  
District Office

## GAS CAPTURE PLAN

Date: 06/22/2021

x Original

Devon & OGRID No.: Devon Energy ProdCo., LP (6137)

This Gas Capture Plan outlines actions to be taken by the Devon to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

*Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).*

### Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

| Well Name                       | API | STR        | N/S Footage | Call | E/W Footage | Call | Expected MCF/D | Flared/Vented | CTB                   |
|---------------------------------|-----|------------|-------------|------|-------------|------|----------------|---------------|-----------------------|
| Prairie Fire 27-25 Fed Com 621H |     | 27-20S-29E | 148         | FNL  | 710         | FWL  |                |               | Prairie Fire 27 Fac 1 |
| Prairie Fire 27-25 Fed Com 331H |     | 27-20S-29E | 178         | FNL  | 710         | FWL  |                |               | Prairie Fire 27 Fac 1 |
| Prairie Fire 27-25 Fed Com 622H |     | 27-20S-29E | 208         | FNL  | 710         | FWL  |                |               | Prairie Fire 27 Fac 1 |
| Prairie Fire 27-25 Fed Com 332H |     | 27-20S-29E | 238         | FNL  | 710         | FWL  |                |               | Prairie Fire 27 Fac 1 |
| Prairie Fire 25-26 Fed Com 623H |     | 30-20S-30E | 490         | FSL  | 1019        | FWL  |                |               | Prairie Fire 30 Fac 1 |
| Prairie Fire 25-26 Fed Com 333H |     | 30-20S-30E | 462         | FSL  | 1007        | FWL  |                |               | Prairie Fire 30 Fac 1 |
| Prairie Fire 25-26 Fed Com 624H |     | 30-20S-30E | 435         | FSL  | 995         | FWL  |                |               | Prairie Fire 30 Fac 1 |

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to DCP and will be connected to DCP low/high pressure gathering system located in Eddy County, New Mexico. It will require 10,000' of pipeline to connect the facility to low/high pressure gathering system. Devon Energy provides (periodically) to DCP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Devon Energy and DCP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP Processing Plant located in Sec.19, T19S, R32E, Lea, County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

### Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP system at that time. Based on current information, it is Devon Energy's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of under-balanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

### Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines





**Well:** Prairie Fire 27-25 Fed Com 621H

**County:** Eddy

**Wellbore:** Permit Plan

**Design:** Permit Plan #1

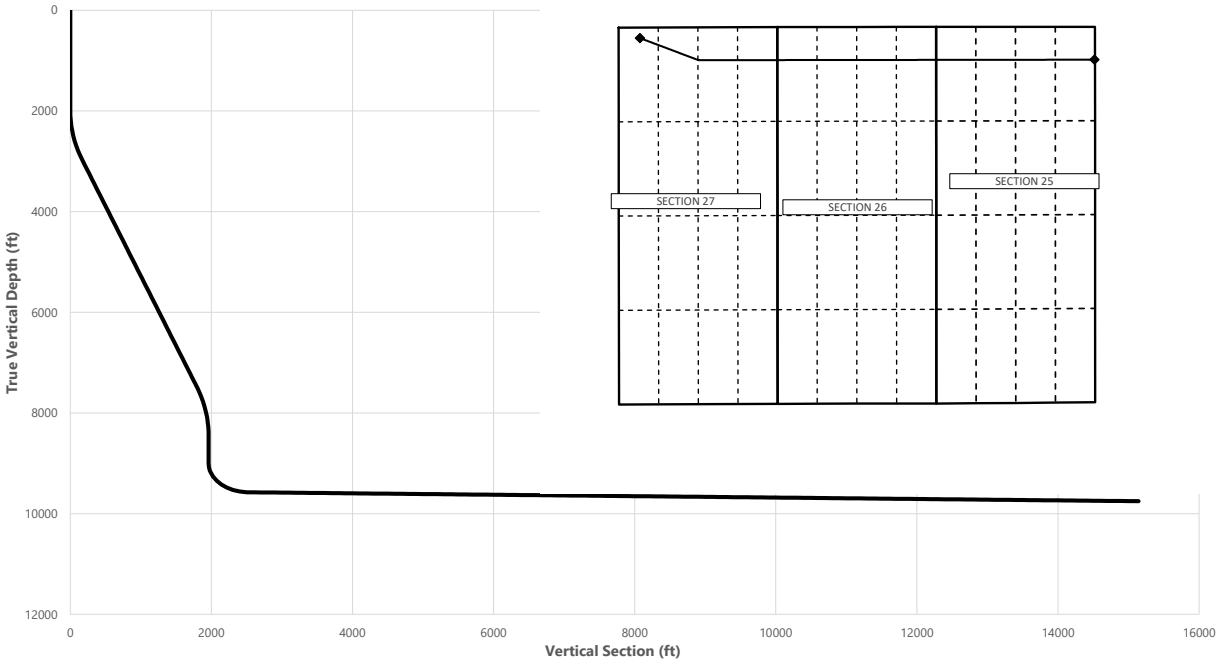
**Geodetic System:** US State Plane 1983

**Datum:** North American Datum 1927

**Ellipsoid:** Clarke 1866

**Zone:** 3001 - NM East (NAD83)

| MD       | INC   | AZI   | TVD     | NS      | EW       | VS       | DLS       | Comment          |
|----------|-------|-------|---------|---------|----------|----------|-----------|------------------|
| (ft)     | (°)   | (°)   | (ft)    | (ft)    | (ft)     | (ft)     | (°/100ft) |                  |
| 0.00     | 0.00  | 0.00  | 0.00    | 0.00    | 0.00     | 0.00     | 0.00      | SHL              |
| 2000.00  | 0.00  | 99.00 | 2000.00 | 0.00    | 0.00     | 0.00     | 0.00      | Start Tangent    |
| 3000.00  | 20.00 | 99.00 | 2979.82 | -27.03  | 170.64   | 171.15   | 2.00      | Hold Tangent     |
| 7776.48  | 20.00 | 99.00 | 7468.24 | -282.59 | 1784.18  | 1789.47  | 0.00      | Drop to Vertical |
| 8776.48  | 0.00  | 99.00 | 8448.05 | -309.61 | 1954.82  | 1960.62  | 2.00      | Hold Vertical    |
| 9331.54  | 0.00  | 89.97 | 9003.11 | -309.61 | 1954.82  | 1960.62  | 0.00      | KOP              |
| 10223.50 | 89.20 | 89.97 | 9576.01 | -309.32 | 2519.74  | 2525.42  | 10.00     | Landing Point    |
| 22844.06 | 89.20 | 89.97 | 9753.00 | -302.71 | 15139.06 | 15142.09 | 0.00      | BHL              |



| Key Depths                      | MD       | TVD     |
|---------------------------------|----------|---------|
|                                 | (ft)     | (ft)    |
| Rustler                         | 284.00   | 284.00  |
| Salt                            | 449.00   | 449.00  |
| Base of Salt                    | 1040.00  | 1040.00 |
| Capitan Reef Top                | 1810.00  | 1810.00 |
| Delaware                        | 3945.19  | 3868.00 |
| Cherry Canyon                   | 4286.79  | 4189.00 |
| Brushy Canyon                   | 4915.72  | 4780.00 |
| 1st Bone Spring Lime            | 6597.12  | 6360.00 |
| Bone Spring 1st                 | 7703.86  | 7400.00 |
| Bone Spring 2nd                 | 8484.92  | 8157.00 |
| 3rd Bone Spring Lime            | 8744.42  | 8416.00 |
| Bone Spring 3rd                 | 9470.79  | 9141.00 |
| Wolfcamp / Point of Penetration | 11292.12 | 9591.00 |
| exit                            | 22764.06 | 9751.89 |

|                      | MD       | TVD     | Lat     | Long      | Section Footages                            |
|----------------------|----------|---------|---------|-----------|---|
|                      | (ft)     | (ft)    | (°)     | (°)       |   |
| SHL                  | 0.00     | 0.00    | 32.5512 | -104.0692 | 148' FNL, 710' FWL of Sec 27 in T20S, R29E  |
| KOP                  | 9331.54  | 9003.11 | 32.5503 | -104.0629 | 461' FNL, 2622' FEL of Sec 27 in T20S, R29E |
| Point of Penetration | 11292.12 | 9591.00 | 32.5504 | -104.0625 | 460' FNL, 2540' FEL of Sec 27 in T20S, R29E |
| Exit                 | 22764.06 | 9751.89 | 32.5503 | -104.0203 | 460' FNL, 100' FEL of Sec 25 in T20S, R29E  |
| BHL                  | 22844.06 | 9753.00 | 32.5502 | -104.0201 | 460' FNL, 20' FEL of Sec 25 in T20S, R29E   |

|     |        |        |         |
|-----|--------|--------|---------|
|     | Y      | X      | MD      |
| KOP | 564079 | 624690 | 9331.54 |

Prairie Fire 27-25 Fed Com 621H



**Well:** Prairie Fire 27-25 Fed Com 621H  
**County:** Eddy  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

**Geodetic System:** US State Plane 1983  
**Datum:** North American Datum 1927  
**Ellipsoid:** Clarke 1866  
**Zone:** 3001 - NM East (NAD83)

| MD<br>(ft) | INC<br>(°) | AZI<br>(°) | TVD<br>(ft) | NS<br>(ft) | EW<br>(ft) | VS<br>(ft) | DLS<br>(°/100ft) | Comment          |
|------------|------------|------------|-------------|------------|------------|------------|------------------|------------------|
| 0.00       | 0.00       | 0.00       | 0.00        | 0.00       | 0.00       | 0.00       | 0.00             | SHL              |
| 100.00     | 0.00       | 99.00      | 100.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 200.00     | 0.00       | 99.00      | 200.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 284.00     | 0.00       | 99.00      | 284.00      | 0.00       | 0.00       | 0.00       | 0.00             | Rustler          |
| 300.00     | 0.00       | 99.00      | 300.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 400.00     | 0.00       | 99.00      | 400.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 449.00     | 0.00       | 99.00      | 449.00      | 0.00       | 0.00       | 0.00       | 0.00             | Salt             |
| 500.00     | 0.00       | 99.00      | 500.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 600.00     | 0.00       | 99.00      | 600.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 700.00     | 0.00       | 99.00      | 700.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 800.00     | 0.00       | 99.00      | 800.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 900.00     | 0.00       | 99.00      | 900.00      | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1000.00    | 0.00       | 99.00      | 1000.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1040.00    | 0.00       | 99.00      | 1040.00     | 0.00       | 0.00       | 0.00       | 0.00             | Base of Salt     |
| 1100.00    | 0.00       | 99.00      | 1100.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1200.00    | 0.00       | 99.00      | 1200.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1300.00    | 0.00       | 99.00      | 1300.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1400.00    | 0.00       | 99.00      | 1400.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1500.00    | 0.00       | 99.00      | 1500.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1600.00    | 0.00       | 99.00      | 1600.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1700.00    | 0.00       | 99.00      | 1700.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1800.00    | 0.00       | 99.00      | 1800.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 1810.00    | 0.00       | 99.00      | 1810.00     | 0.00       | 0.00       | 0.00       | 0.00             | Capitan Reef Top |
| 1900.00    | 0.00       | 99.00      | 1900.00     | 0.00       | 0.00       | 0.00       | 0.00             |                  |
| 2000.00    | 0.00       | 99.00      | 2000.00     | 0.00       | 0.00       | 0.00       | 0.00             | Start Tangent    |
| 2100.00    | 2.00       | 99.00      | 2099.98     | -0.27      | 1.72       | 1.73       | 2.00             |                  |
| 2200.00    | 4.00       | 99.00      | 2199.84     | -1.09      | 6.89       | 6.91       | 2.00             |                  |
| 2300.00    | 6.00       | 99.00      | 2299.45     | -2.45      | 15.50      | 15.55      | 2.00             |                  |
| 2400.00    | 8.00       | 99.00      | 2398.70     | -4.36      | 27.54      | 27.62      | 2.00             |                  |
| 2500.00    | 10.00      | 99.00      | 2497.47     | -6.81      | 42.99      | 43.11      | 2.00             |                  |
| 2600.00    | 12.00      | 99.00      | 2595.62     | -9.79      | 61.83      | 62.02      | 2.00             |                  |
| 2700.00    | 14.00      | 99.00      | 2693.06     | -13.31     | 84.05      | 84.30      | 2.00             |                  |
| 2800.00    | 16.00      | 99.00      | 2789.64     | -17.36     | 109.61     | 109.94     | 2.00             |                  |
| 2900.00    | 18.00      | 99.00      | 2885.27     | -21.93     | 138.49     | 138.90     | 2.00             |                  |
| 3000.00    | 20.00      | 99.00      | 2979.82     | -27.03     | 170.64     | 171.15     | 2.00             | Hold Tangent     |
| 3100.00    | 20.00      | 99.00      | 3073.78     | -32.38     | 204.42     | 205.03     | 0.00             |                  |
| 3200.00    | 20.00      | 99.00      | 3167.75     | -37.73     | 238.20     | 238.91     | 0.00             |                  |
| 3300.00    | 20.00      | 99.00      | 3261.72     | -43.08     | 271.98     | 272.79     | 0.00             |                  |
| 3400.00    | 20.00      | 99.00      | 3355.69     | -48.43     | 305.76     | 306.67     | 0.00             |                  |
| 3500.00    | 20.00      | 99.00      | 3449.66     | -53.78     | 339.55     | 340.55     | 0.00             |                  |
| 3600.00    | 20.00      | 99.00      | 3543.63     | -59.13     | 373.33     | 374.43     | 0.00             |                  |
| 3700.00    | 20.00      | 99.00      | 3637.60     | -64.48     | 407.11     | 408.31     | 0.00             |                  |
| 3800.00    | 20.00      | 99.00      | 3731.57     | -69.83     | 440.89     | 442.20     | 0.00             |                  |
| 3900.00    | 20.00      | 99.00      | 3825.54     | -75.18     | 474.67     | 476.08     | 0.00             |                  |
| 3945.19    | 20.00      | 99.00      | 3868.00     | -77.60     | 489.93     | 491.39     | 0.00             | Delaware         |
| 4000.00    | 20.00      | 99.00      | 3919.51     | -80.53     | 508.45     | 509.96     | 0.00             |                  |
| 4100.00    | 20.00      | 99.00      | 4013.48     | -85.88     | 542.23     | 543.84     | 0.00             |                  |
| 4200.00    | 20.00      | 99.00      | 4107.45     | -91.23     | 576.01     | 577.72     | 0.00             |                  |
| 4286.79    | 20.00      | 99.00      | 4189.00     | -95.87     | 605.33     | 607.13     | 0.00             | Cherry Canyon    |
| 4300.00    | 20.00      | 99.00      | 4201.42     | -96.58     | 609.79     | 611.60     | 0.00             |                  |
| 4400.00    | 20.00      | 99.00      | 4295.39     | -101.93    | 643.57     | 645.48     | 0.00             |                  |
| 4500.00    | 20.00      | 99.00      | 4389.35     | -107.28    | 677.35     | 679.36     | 0.00             |                  |
| 4600.00    | 20.00      | 99.00      | 4483.32     | -112.63    | 711.14     | 713.25     | 0.00             |                  |
| 4700.00    | 20.00      | 99.00      | 4577.29     | -117.98    | 744.92     | 747.13     | 0.00             |                  |
| 4800.00    | 20.00      | 99.00      | 4671.26     | -123.33    | 778.70     | 781.01     | 0.00             |                  |
| 4900.00    | 20.00      | 99.00      | 4765.23     | -128.68    | 812.48     | 814.89     | 0.00             |                  |
| 4915.72    | 20.00      | 99.00      | 4780.00     | -129.52    | 817.79     | 820.21     | 0.00             | Brushy Canyon    |
| 5000.00    | 20.00      | 99.00      | 4859.20     | -134.03    | 846.26     | 848.77     | 0.00             |                  |
| 5100.00    | 20.00      | 99.00      | 4953.17     | -139.38    | 880.04     | 882.65     | 0.00             |                  |
| 5200.00    | 20.00      | 99.00      | 5047.14     | -144.73    | 913.82     | 916.53     | 0.00             |                  |
| 5300.00    | 20.00      | 99.00      | 5141.11     | -150.08    | 947.60     | 950.41     | 0.00             |                  |
| 5400.00    | 20.00      | 99.00      | 5235.08     | -155.43    | 981.38     | 984.29     | 0.00             |                  |
| 5500.00    | 20.00      | 99.00      | 5329.05     | -160.78    | 1015.16    | 1018.18    | 0.00             |                  |
| 5600.00    | 20.00      | 99.00      | 5423.02     | -166.14    | 1048.94    | 1052.06    | 0.00             |                  |
| 5700.00    | 20.00      | 99.00      | 5516.99     | -171.49    | 1082.73    | 1085.94    | 0.00             |                  |
| 5800.00    | 20.00      | 99.00      | 5610.96     | -176.84    | 1116.51    | 1119.82    | 0.00             |                  |
| 5900.00    | 20.00      | 99.00      | 5704.92     | -182.19    | 1150.29    | 1153.70    | 0.00             |                  |
| 6000.00    | 20.00      | 99.00      | 5798.89     | -187.54    | 1184.07    | 1187.58    | 0.00             |                  |
| 6100.00    | 20.00      | 99.00      | 5892.86     | -192.89    | 1217.85    | 1221.46    | 0.00             |                  |
| 6200.00    | 20.00      | 99.00      | 5986.83     | -198.24    | 1251.63    | 1255.34    | 0.00             |                  |

Prairie Fire 27-25 Fed Com 621H



**Well:** Prairie Fire 27-25 Fed Com 621H  
**County:** Eddy  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

**Geodetic System:** US State Plane 1983  
**Datum:** North American Datum 1927  
**Ellipsoid:** Clarke 1866  
**Zone:** 3001 - NM East (NAD83)

| MD<br>(ft) | INC<br>(°) | AZI<br>(°) | TVD<br>(ft) | NS<br>(ft) | EW<br>(ft) | VS<br>(ft) | DLS<br>(°/100ft) | Comment                         |
|------------|------------|------------|-------------|------------|------------|------------|------------------|---------------------------------|
| 6300.00    | 20.00      | 99.00      | 6080.80     | -203.59    | 1285.41    | 1289.22    | 0.00             |                                 |
| 6400.00    | 20.00      | 99.00      | 6174.77     | -208.94    | 1319.19    | 1323.11    | 0.00             |                                 |
| 6500.00    | 20.00      | 99.00      | 6268.74     | -214.29    | 1352.97    | 1356.99    | 0.00             |                                 |
| 6597.12    | 20.00      | 99.00      | 6360.00     | -219.48    | 1385.78    | 1389.89    | 0.00             | 1st Bone Spring Lime            |
| 6600.00    | 20.00      | 99.00      | 6362.71     | -219.64    | 1386.75    | 1390.87    | 0.00             |                                 |
| 6700.00    | 20.00      | 99.00      | 6456.68     | -224.99    | 1420.53    | 1424.75    | 0.00             |                                 |
| 6800.00    | 20.00      | 99.00      | 6550.65     | -230.34    | 1454.32    | 1458.63    | 0.00             |                                 |
| 6900.00    | 20.00      | 99.00      | 6644.62     | -235.69    | 1488.10    | 1492.51    | 0.00             |                                 |
| 7000.00    | 20.00      | 99.00      | 6738.59     | -241.04    | 1521.88    | 1526.39    | 0.00             |                                 |
| 7100.00    | 20.00      | 99.00      | 6832.56     | -246.39    | 1555.66    | 1560.27    | 0.00             |                                 |
| 7200.00    | 20.00      | 99.00      | 6926.53     | -251.74    | 1589.44    | 1594.15    | 0.00             |                                 |
| 7300.00    | 20.00      | 99.00      | 7020.49     | -257.09    | 1623.22    | 1628.04    | 0.00             |                                 |
| 7400.00    | 20.00      | 99.00      | 7114.46     | -262.44    | 1657.00    | 1661.92    | 0.00             |                                 |
| 7500.00    | 20.00      | 99.00      | 7208.43     | -267.79    | 1690.78    | 1695.80    | 0.00             |                                 |
| 7600.00    | 20.00      | 99.00      | 7302.40     | -273.14    | 1724.56    | 1729.68    | 0.00             |                                 |
| 7700.00    | 20.00      | 99.00      | 7396.37     | -278.49    | 1758.34    | 1763.56    | 0.00             |                                 |
| 7703.86    | 20.00      | 99.00      | 7400.00     | -278.70    | 1759.65    | 1764.87    | 0.00             | Bone Spring 1st                 |
| 7776.48    | 20.00      | 99.00      | 7468.24     | -282.59    | 1784.18    | 1789.47    | 0.00             | Drop to Vertical                |
| 7800.00    | 19.53      | 99.00      | 7490.37     | -283.83    | 1792.04    | 1797.35    | 2.00             |                                 |
| 7900.00    | 17.53      | 99.00      | 7585.18     | -288.80    | 1823.42    | 1828.83    | 2.00             |                                 |
| 8000.00    | 15.53      | 99.00      | 7681.05     | -293.25    | 1851.52    | 1857.01    | 2.00             |                                 |
| 8100.00    | 13.53      | 99.00      | 7777.84     | -297.18    | 1876.30    | 1881.87    | 2.00             |                                 |
| 8200.00    | 11.53      | 99.00      | 7875.46     | -300.57    | 1897.73    | 1903.35    | 2.00             |                                 |
| 8300.00    | 9.53       | 99.00      | 7973.77     | -303.43    | 1915.77    | 1921.46    | 2.00             |                                 |
| 8400.00    | 7.53       | 99.00      | 8072.66     | -305.75    | 1930.42    | 1936.15    | 2.00             |                                 |
| 8484.92    | 5.83       | 99.00      | 8157.00     | -307.29    | 1940.18    | 1945.93    | 2.00             | Bone Spring 2nd                 |
| 8500.00    | 5.53       | 99.00      | 8172.00     | -307.53    | 1941.65    | 1947.41    | 2.00             |                                 |
| 8600.00    | 3.53       | 99.00      | 8271.69     | -308.76    | 1949.45    | 1955.24    | 2.00             |                                 |
| 8700.00    | 1.53       | 99.00      | 8371.58     | -309.45    | 1953.81    | 1959.61    | 2.00             |                                 |
| 8744.42    | 0.64       | 99.00      | 8416.00     | -309.58    | 1954.64    | 1960.44    | 2.00             | 3rd Bone Spring Lime            |
| 8776.48    | 0.00       | 99.00      | 8448.05     | -309.61    | 1954.82    | 1960.62    | 2.00             | Hold Vertical                   |
| 8800.00    | 0.00       | 89.97      | 8471.57     | -309.61    | 1954.82    | 1960.62    | 0.00             |                                 |
| 8900.00    | 0.00       | 89.97      | 8571.57     | -309.61    | 1954.82    | 1960.62    | 0.00             |                                 |
| 9000.00    | 0.00       | 89.97      | 8671.57     | -309.61    | 1954.82    | 1960.62    | 0.00             |                                 |
| 9100.00    | 0.00       | 89.97      | 8771.57     | -309.61    | 1954.82    | 1960.62    | 0.00             |                                 |
| 9200.00    | 0.00       | 89.97      | 8871.57     | -309.61    | 1954.82    | 1960.62    | 0.00             |                                 |
| 9300.00    | 0.00       | 89.97      | 8971.57     | -309.61    | 1954.82    | 1960.62    | 0.00             |                                 |
| 9331.54    | 0.00       | 89.97      | 9003.11     | -309.61    | 1954.82    | 1960.62    | 0.00             | KOP                             |
| 9400.00    | 6.85       | 89.97      | 9071.41     | -309.61    | 1958.91    | 1964.70    | 10.00            |                                 |
| 9470.79    | 13.93      | 89.97      | 9141.00     | -309.60    | 1971.66    | 1977.45    | 10.00            | Bone Spring 3rd                 |
| 9500.00    | 16.85      | 89.97      | 9169.16     | -309.60    | 1979.41    | 1985.20    | 10.00            |                                 |
| 9600.00    | 26.85      | 89.97      | 9261.86     | -309.58    | 2016.57    | 2022.36    | 10.00            |                                 |
| 9700.00    | 36.85      | 89.97      | 9346.70     | -309.55    | 2069.27    | 2075.04    | 10.00            |                                 |
| 9800.00    | 46.85      | 89.97      | 9421.10     | -309.52    | 2135.90    | 2141.66    | 10.00            |                                 |
| 9900.00    | 56.85      | 89.97      | 9482.80     | -309.48    | 2214.43    | 2220.18    | 10.00            |                                 |
| 10000.00   | 66.85      | 89.97      | 9529.92     | -309.43    | 2302.49    | 2308.22    | 10.00            |                                 |
| 10100.00   | 76.85      | 89.97      | 9561.04     | -309.38    | 2397.39    | 2403.10    | 10.00            |                                 |
| 10200.00   | 86.85      | 89.97      | 9575.20     | -309.33    | 2496.26    | 2501.94    | 10.00            |                                 |
| 10223.50   | 89.20      | 89.97      | 9576.01     | -309.32    | 2519.74    | 2525.42    | 10.00            | Landing Point                   |
| 10300.00   | 89.20      | 89.97      | 9577.09     | -309.28    | 2596.23    | 2601.90    | 0.00             |                                 |
| 10400.00   | 89.20      | 89.97      | 9578.49     | -309.22    | 2696.22    | 2701.87    | 0.00             |                                 |
| 10500.00   | 89.20      | 89.97      | 9579.89     | -309.17    | 2796.21    | 2801.83    | 0.00             |                                 |
| 10600.00   | 89.20      | 89.97      | 9581.29     | -309.12    | 2896.20    | 2901.80    | 0.00             |                                 |
| 10700.00   | 89.20      | 89.97      | 9582.70     | -309.07    | 2996.19    | 3001.77    | 0.00             |                                 |
| 10800.00   | 89.20      | 89.97      | 9584.10     | -309.01    | 3096.18    | 3101.74    | 0.00             |                                 |
| 10900.00   | 89.20      | 89.97      | 9585.50     | -308.96    | 3196.17    | 3201.71    | 0.00             |                                 |
| 11000.00   | 89.20      | 89.97      | 9586.90     | -308.91    | 3296.16    | 3301.68    | 0.00             |                                 |
| 11100.00   | 89.20      | 89.97      | 9588.31     | -308.86    | 3396.15    | 3401.65    | 0.00             |                                 |
| 11200.00   | 89.20      | 89.97      | 9589.71     | -308.80    | 3496.14    | 3501.62    | 0.00             |                                 |
| 11292.12   | 89.20      | 89.97      | 9591.00     | -308.76    | 3588.25    | 3593.71    | 0.00             | Wolfcamp / Point of Penetration |
| 11300.00   | 89.20      | 89.97      | 9591.11     | -308.75    | 3596.13    | 3601.59    | 0.00             |                                 |
| 11400.00   | 89.20      | 89.97      | 9592.51     | -308.70    | 3696.12    | 3701.56    | 0.00             |                                 |
| 11500.00   | 89.20      | 89.97      | 9593.92     | -308.65    | 3796.11    | 3801.53    | 0.00             |                                 |
| 11600.00   | 89.20      | 89.97      | 9595.32     | -308.59    | 3896.10    | 3901.50    | 0.00             |                                 |
| 11700.00   | 89.20      | 89.97      | 9596.72     | -308.54    | 3996.09    | 4001.46    | 0.00             |                                 |
| 11800.00   | 89.20      | 89.97      | 9598.12     | -308.49    | 4096.08    | 4101.43    | 0.00             |                                 |
| 11900.00   | 89.20      | 89.97      | 9599.53     | -308.44    | 4196.07    | 4201.40    | 0.00             |                                 |
| 12000.00   | 89.20      | 89.97      | 9600.93     | -308.38    | 4296.07    | 4301.37    | 0.00             |                                 |
| 12100.00   | 89.20      | 89.97      | 9602.33     | -308.33    | 4396.06    | 4401.34    | 0.00             |                                 |
| 12200.00   | 89.20      | 89.97      | 9603.73     | -308.28    | 4496.05    | 4501.31    | 0.00             |                                 |

Prairie Fire 27-25 Fed Com 621H



**Well:** Prairie Fire 27-25 Fed Com 621H  
**County:** Eddy  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

**Geodetic System:** US State Plane 1983  
**Datum:** North American Datum 1927  
**Ellipsoid:** Clarke 1866  
**Zone:** 3001 - NM East (NAD83)

| MD<br>(ft) | INC<br>(") | AZI<br>(") | TVD<br>(ft) | NS<br>(ft) | EW<br>(ft) | VS<br>(ft) | DLS<br>("/100ft) | Comment |
|------------|------------|------------|-------------|------------|------------|------------|------------------|---------|
| 12300.00   | 89.20      | 89.97      | 9605.14     | -308.23    | 4596.04    | 4601.28    | 0.00             |         |
| 12400.00   | 89.20      | 89.97      | 9606.54     | -308.17    | 4696.03    | 4701.25    | 0.00             |         |
| 12500.00   | 89.20      | 89.97      | 9607.94     | -308.12    | 4796.02    | 4801.22    | 0.00             |         |
| 12600.00   | 89.20      | 89.97      | 9609.34     | -308.07    | 4896.01    | 4901.19    | 0.00             |         |
| 12700.00   | 89.20      | 89.97      | 9610.75     | -308.02    | 4996.00    | 5001.16    | 0.00             |         |
| 12800.00   | 89.20      | 89.97      | 9612.15     | -307.96    | 5095.99    | 5101.12    | 0.00             |         |
| 12900.00   | 89.20      | 89.97      | 9613.55     | -307.91    | 5195.98    | 5201.09    | 0.00             |         |
| 13000.00   | 89.20      | 89.97      | 9614.95     | -307.86    | 5295.97    | 5301.06    | 0.00             |         |
| 13100.00   | 89.20      | 89.97      | 9616.36     | -307.81    | 5395.96    | 5401.03    | 0.00             |         |
| 13200.00   | 89.20      | 89.97      | 9617.76     | -307.75    | 5495.95    | 5501.00    | 0.00             |         |
| 13300.00   | 89.20      | 89.97      | 9619.16     | -307.70    | 5595.94    | 5600.97    | 0.00             |         |
| 13400.00   | 89.20      | 89.97      | 9620.56     | -307.65    | 5695.93    | 5700.94    | 0.00             |         |
| 13500.00   | 89.20      | 89.97      | 9621.97     | -307.60    | 5795.92    | 5800.91    | 0.00             |         |
| 13600.00   | 89.20      | 89.97      | 9623.37     | -307.55    | 5895.91    | 5900.88    | 0.00             |         |
| 13700.00   | 89.20      | 89.97      | 9624.77     | -307.49    | 5995.90    | 6000.85    | 0.00             |         |
| 13800.00   | 89.20      | 89.97      | 9626.17     | -307.44    | 6095.89    | 6100.82    | 0.00             |         |
| 13900.00   | 89.20      | 89.97      | 9627.58     | -307.39    | 6195.88    | 6200.78    | 0.00             |         |
| 14000.00   | 89.20      | 89.97      | 9628.98     | -307.34    | 6295.87    | 6300.75    | 0.00             |         |
| 14100.00   | 89.20      | 89.97      | 9630.38     | -307.28    | 6395.86    | 6400.72    | 0.00             |         |
| 14200.00   | 89.20      | 89.97      | 9631.78     | -307.23    | 6495.85    | 6500.69    | 0.00             |         |
| 14300.00   | 89.20      | 89.97      | 9633.19     | -307.18    | 6595.84    | 6600.66    | 0.00             |         |
| 14400.00   | 89.20      | 89.97      | 9634.59     | -307.13    | 6695.83    | 6700.63    | 0.00             |         |
| 14500.00   | 89.20      | 89.97      | 9635.99     | -307.07    | 6795.82    | 6800.60    | 0.00             |         |
| 14600.00   | 89.20      | 89.97      | 9637.39     | -307.02    | 6895.81    | 6900.57    | 0.00             |         |
| 14700.00   | 89.20      | 89.97      | 9638.80     | -306.97    | 6995.80    | 7000.54    | 0.00             |         |
| 14800.00   | 89.20      | 89.97      | 9640.20     | -306.92    | 7095.79    | 7100.51    | 0.00             |         |
| 14900.00   | 89.20      | 89.97      | 9641.60     | -306.86    | 7195.78    | 7200.48    | 0.00             |         |
| 15000.00   | 89.20      | 89.97      | 9643.00     | -306.81    | 7295.77    | 7300.45    | 0.00             |         |
| 15100.00   | 89.20      | 89.97      | 9644.41     | -306.76    | 7395.76    | 7400.41    | 0.00             |         |
| 15200.00   | 89.20      | 89.97      | 9645.81     | -306.71    | 7495.75    | 7500.38    | 0.00             |         |
| 15300.00   | 89.20      | 89.97      | 9647.21     | -306.65    | 7595.74    | 7600.35    | 0.00             |         |
| 15400.00   | 89.20      | 89.97      | 9648.61     | -306.60    | 7695.73    | 7700.32    | 0.00             |         |
| 15500.00   | 89.20      | 89.97      | 9650.02     | -306.55    | 7795.72    | 7800.29    | 0.00             |         |
| 15600.00   | 89.20      | 89.97      | 9651.42     | -306.50    | 7895.71    | 7900.26    | 0.00             |         |
| 15700.00   | 89.20      | 89.97      | 9652.82     | -306.44    | 7995.70    | 8000.23    | 0.00             |         |
| 15800.00   | 89.20      | 89.97      | 9654.22     | -306.39    | 8095.69    | 8100.20    | 0.00             |         |
| 15900.00   | 89.20      | 89.97      | 9655.63     | -306.34    | 8195.68    | 8200.17    | 0.00             |         |
| 16000.00   | 89.20      | 89.97      | 9657.03     | -306.29    | 8295.67    | 8300.14    | 0.00             |         |
| 16100.00   | 89.20      | 89.97      | 9658.43     | -306.23    | 8395.66    | 8400.11    | 0.00             |         |
| 16200.00   | 89.20      | 89.97      | 9659.83     | -306.18    | 8495.65    | 8500.07    | 0.00             |         |
| 16300.00   | 89.20      | 89.97      | 9661.24     | -306.13    | 8595.64    | 8600.04    | 0.00             |         |
| 16400.00   | 89.20      | 89.97      | 9662.64     | -306.08    | 8695.63    | 8700.01    | 0.00             |         |
| 16500.00   | 89.20      | 89.97      | 9664.04     | -306.02    | 8795.62    | 8799.98    | 0.00             |         |
| 16600.00   | 89.20      | 89.97      | 9665.44     | -305.97    | 8895.61    | 8899.95    | 0.00             |         |
| 16700.00   | 89.20      | 89.97      | 9666.85     | -305.92    | 8995.60    | 8999.92    | 0.00             |         |
| 16800.00   | 89.20      | 89.97      | 9668.25     | -305.87    | 9095.59    | 9099.89    | 0.00             |         |
| 16900.00   | 89.20      | 89.97      | 9669.65     | -305.81    | 9195.58    | 9199.86    | 0.00             |         |
| 17000.00   | 89.20      | 89.97      | 9671.05     | -305.76    | 9295.57    | 9299.83    | 0.00             |         |
| 17100.00   | 89.20      | 89.97      | 9672.46     | -305.71    | 9395.56    | 9399.80    | 0.00             |         |
| 17200.00   | 89.20      | 89.97      | 9673.86     | -305.66    | 9495.55    | 9499.77    | 0.00             |         |
| 17300.00   | 89.20      | 89.97      | 9675.26     | -305.60    | 9595.54    | 9599.73    | 0.00             |         |
| 17400.00   | 89.20      | 89.97      | 9676.66     | -305.55    | 9695.53    | 9699.70    | 0.00             |         |
| 17500.00   | 89.20      | 89.97      | 9678.07     | -305.50    | 9795.52    | 9799.67    | 0.00             |         |
| 17600.00   | 89.20      | 89.97      | 9679.47     | -305.45    | 9895.51    | 9899.64    | 0.00             |         |
| 17700.00   | 89.20      | 89.97      | 9680.87     | -305.39    | 9995.50    | 9999.61    | 0.00             |         |
| 17800.00   | 89.20      | 89.97      | 9682.27     | -305.34    | 10095.49   | 10099.58   | 0.00             |         |
| 17900.00   | 89.20      | 89.97      | 9683.68     | -305.29    | 10195.48   | 10199.55   | 0.00             |         |
| 18000.00   | 89.20      | 89.97      | 9685.08     | -305.24    | 10295.47   | 10299.52   | 0.00             |         |
| 18100.00   | 89.20      | 89.97      | 9686.48     | -305.18    | 10395.46   | 10399.49   | 0.00             |         |
| 18200.00   | 89.20      | 89.97      | 9687.88     | -305.13    | 10495.45   | 10499.46   | 0.00             |         |
| 18300.00   | 89.20      | 89.97      | 9689.29     | -305.08    | 10595.44   | 10599.43   | 0.00             |         |
| 18400.00   | 89.20      | 89.97      | 9690.69     | -305.03    | 10695.43   | 10699.40   | 0.00             |         |
| 18500.00   | 89.20      | 89.97      | 9692.09     | -304.97    | 10795.42   | 10799.36   | 0.00             |         |
| 18600.00   | 89.20      | 89.97      | 9693.49     | -304.92    | 10895.42   | 10899.33   | 0.00             |         |
| 18700.00   | 89.20      | 89.97      | 9694.90     | -304.87    | 10995.41   | 10999.30   | 0.00             |         |
| 18800.00   | 89.20      | 89.97      | 9696.30     | -304.82    | 11095.40   | 11099.27   | 0.00             |         |
| 18900.00   | 89.20      | 89.97      | 9697.70     | -304.76    | 11195.39   | 11199.24   | 0.00             |         |
| 19000.00   | 89.20      | 89.97      | 9699.10     | -304.71    | 11295.38   | 11299.21   | 0.00             |         |
| 19100.00   | 89.20      | 89.97      | 9700.51     | -304.66    | 11395.37   | 11399.18   | 0.00             |         |
| 19200.00   | 89.20      | 89.97      | 9701.91     | -304.61    | 11495.36   | 11499.15   | 0.00             |         |



Prairie Fire 27-25 Fed Com 621H



**Well:** Prairie Fire 27-25 Fed Com 621H  
**County:** Eddy  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

**Geodetic System:** US State Plane 1983  
**Datum:** North American Datum 1927  
**Ellipsoid:** Clarke 1866  
**Zone:** 3001 - NM East (NAD83)

| MD<br>(ft) | INC<br>(°) | AZI<br>(°) | TVD<br>(ft) | NS<br>(ft) | EW<br>(ft) | VS<br>(ft) | DLS<br>(°/100ft) | Comment |
|------------|------------|------------|-------------|------------|------------|------------|------------------|---------|
| 19300.00   | 89.20      | 89.97      | 9703.31     | -304.55    | 11595.35   | 11599.12   | 0.00             |         |
| 19400.00   | 89.20      | 89.97      | 9704.71     | -304.50    | 11695.34   | 11699.09   | 0.00             |         |
| 19500.00   | 89.20      | 89.97      | 9706.12     | -304.45    | 11795.33   | 11799.06   | 0.00             |         |
| 19600.00   | 89.20      | 89.97      | 9707.52     | -304.40    | 11895.32   | 11899.02   | 0.00             |         |
| 19700.00   | 89.20      | 89.97      | 9708.92     | -304.34    | 11995.31   | 11998.99   | 0.00             |         |
| 19800.00   | 89.20      | 89.97      | 9710.32     | -304.29    | 12095.30   | 12098.96   | 0.00             |         |
| 19900.00   | 89.20      | 89.97      | 9711.73     | -304.24    | 12195.29   | 12198.93   | 0.00             |         |
| 20000.00   | 89.20      | 89.97      | 9713.13     | -304.19    | 12295.28   | 12298.90   | 0.00             |         |
| 20100.00   | 89.20      | 89.97      | 9714.53     | -304.13    | 12395.27   | 12398.87   | 0.00             |         |
| 20200.00   | 89.20      | 89.97      | 9715.93     | -304.08    | 12495.26   | 12498.84   | 0.00             |         |
| 20300.00   | 89.20      | 89.97      | 9717.34     | -304.03    | 12595.25   | 12598.81   | 0.00             |         |
| 20400.00   | 89.20      | 89.97      | 9718.74     | -303.98    | 12695.24   | 12698.78   | 0.00             |         |
| 20500.00   | 89.20      | 89.97      | 9720.14     | -303.92    | 12795.23   | 12798.75   | 0.00             |         |
| 20600.00   | 89.20      | 89.97      | 9721.54     | -303.87    | 12895.22   | 12898.72   | 0.00             |         |
| 20700.00   | 89.20      | 89.97      | 9722.95     | -303.82    | 12995.21   | 12998.68   | 0.00             |         |
| 20800.00   | 89.20      | 89.97      | 9724.35     | -303.77    | 13095.20   | 13098.65   | 0.00             |         |
| 20900.00   | 89.20      | 89.97      | 9725.75     | -303.71    | 13195.19   | 13198.62   | 0.00             |         |
| 21000.00   | 89.20      | 89.97      | 9727.15     | -303.66    | 13295.18   | 13298.59   | 0.00             |         |
| 21100.00   | 89.20      | 89.97      | 9728.56     | -303.61    | 13395.17   | 13398.56   | 0.00             |         |
| 21200.00   | 89.20      | 89.97      | 9729.96     | -303.56    | 13495.16   | 13498.53   | 0.00             |         |
| 21300.00   | 89.20      | 89.97      | 9731.36     | -303.50    | 13595.15   | 13598.50   | 0.00             |         |
| 21400.00   | 89.20      | 89.97      | 9732.76     | -303.45    | 13695.14   | 13698.47   | 0.00             |         |
| 21500.00   | 89.20      | 89.97      | 9734.17     | -303.40    | 13795.13   | 13798.44   | 0.00             |         |
| 21600.00   | 89.20      | 89.97      | 9735.57     | -303.35    | 13895.12   | 13898.41   | 0.00             |         |
| 21700.00   | 89.20      | 89.97      | 9736.97     | -303.29    | 13995.11   | 13998.38   | 0.00             |         |
| 21800.00   | 89.20      | 89.97      | 9738.37     | -303.24    | 14095.10   | 14098.35   | 0.00             |         |
| 21900.00   | 89.20      | 89.97      | 9739.78     | -303.19    | 14195.09   | 14198.31   | 0.00             |         |
| 22000.00   | 89.20      | 89.97      | 9741.18     | -303.14    | 14295.08   | 14298.28   | 0.00             |         |
| 22100.00   | 89.20      | 89.97      | 9742.58     | -303.08    | 14395.07   | 14398.25   | 0.00             |         |
| 22200.00   | 89.20      | 89.97      | 9743.98     | -303.03    | 14495.06   | 14498.22   | 0.00             |         |
| 22300.00   | 89.20      | 89.97      | 9745.39     | -302.98    | 14595.05   | 14598.19   | 0.00             |         |
| 22400.00   | 89.20      | 89.97      | 9746.79     | -302.93    | 14695.04   | 14698.16   | 0.00             |         |
| 22500.00   | 89.20      | 89.97      | 9748.19     | -302.87    | 14795.03   | 14798.13   | 0.00             |         |
| 22600.00   | 89.20      | 89.97      | 9749.59     | -302.82    | 14895.02   | 14898.10   | 0.00             |         |
| 22700.00   | 89.20      | 89.97      | 9751.00     | -302.77    | 14995.01   | 14998.07   | 0.00             |         |
| 22764.06   | 89.20      | 89.97      | 9751.89     | -302.74    | 15059.07   | 15062.11   | 0.00             | exit    |
| 22800.00   | 89.20      | 89.97      | 9752.40     | -302.72    | 15095.00   | 15098.04   | 0.00             |         |
| 22844.06   | 89.20      | 89.97      | 9753.00     | -302.71    | 15139.06   | 15142.09   | 0.00             | BHL     |

# 13-5/8" 5M BOPE & Closed Loop Equipment Schematic



A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the intermediate 1 casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the intermediate 1 casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate 1 casing shoe shall be 5000 (5M) psi.

- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial BOP test.
- Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate 2 casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 5M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.
- If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.

After running the intermediate 1 casing, a 13-5/8" BOP/BOPE system with a minimum rating of 5M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 5,000 psi high pressure test. The 5,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.

After running the intermediate 2 casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 5M will already be installed on the wellhead.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 5,000 psi WP.

Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.

## Section 2 - Blowout Preventer Testing Procedure

### Variance Request

Devon Energy requests to only test BOP connection breaks after drilling out of surface casing and while skidding between wells which conforms to API Standard 53 and industry standards. This test will include the Top Pipe Rams, HCR, Kill Line Check Valve, QDC (quick disconnect to wellhead) and Shell of the 10M BOPE to 5M for 10 minutes. If a break to the flex hose that runs to the choke manifold is required due to repositioning from a skid, the HCR will remain open during the shell test to include that additional break. The variance only pertains to intermediate hole-sections and no deeper than the Bone Springs Formation where 5M BOP tests are required. The initial BOP test will follow OOGO2.III.A.2.i, and subsequent tests following a skid will only test connections that are broken. The annular preventer will be tested to 100% working pressure. This variance will meet or exceed OOGO2.III.A.2.i per the following: Devon Energy will perform a full BOP test per OOGO2.III.A.2.i before drilling out of the intermediate casing string(s) and starting the production hole, before starting any hole section that requires a 10M test, before the expiration of the allotted 14-days for 5M intermediate batch drilling or when the drilling rig is fully mobilized to a new well pad, whichever is sooner. We will utilize a 200' TVD tolerance between intermediate shoes as the cutoff for a full BOP test. The BLM will be contacted 4hrs prior to a BOPE test. The BLM will be notified if and when a well control event is encountered. Break test will be a 14 day interval and not a 30 day full BOPE test interval. If in the event break testing is not utilized, then a full BOPE test would be conducted.

1. Well Control Response:
  1. Primary barrier remains fluid
  2. In the event of an influx due to being underbalanced and after a realized gain or flow, the order of closing BOPE is as follows:
    - a) Annular first
    - b) If annular were to not hold, Upper pipe rams second (which were tested on the skid BOP test)
    - c) If the Upper Pipe Rams were to not hold, Lower Pipe Rams would be third



**Cactus**  
Wellhead

2-9-17  
E Bell

80.7 °F

15:49



50

Date 02-09-17

Tested By E.BELL

Transducer bay2

Transducer Serial 181504

Calibration Date 9/6/15

|   | Job#            | Part#  | Serial#     | Description                           | Test Pressure |
|---|-----------------|--------|-------------|---------------------------------------|---------------|
| 1 | TRJ0006341-0007 | 116966 | TRJ6341-7-1 | ADPT,DRLG,CW,MBU-3T,13-5/8 10M        | 15000         |
| 2 |                 |        |             |                                       |               |
| 3 |                 |        |             |                                       |               |
| 4 |                 |        |             |                                       |               |
| 5 |                 |        |             | TRANSDUCER CALIBRATION DUE 03/13/2017 |               |
| 6 |                 |        |             |                                       |               |
| 7 |                 |        |             |                                       |               |
| 8 |                 |        |             |                                       |               |



Start



Stop



Zero



Config

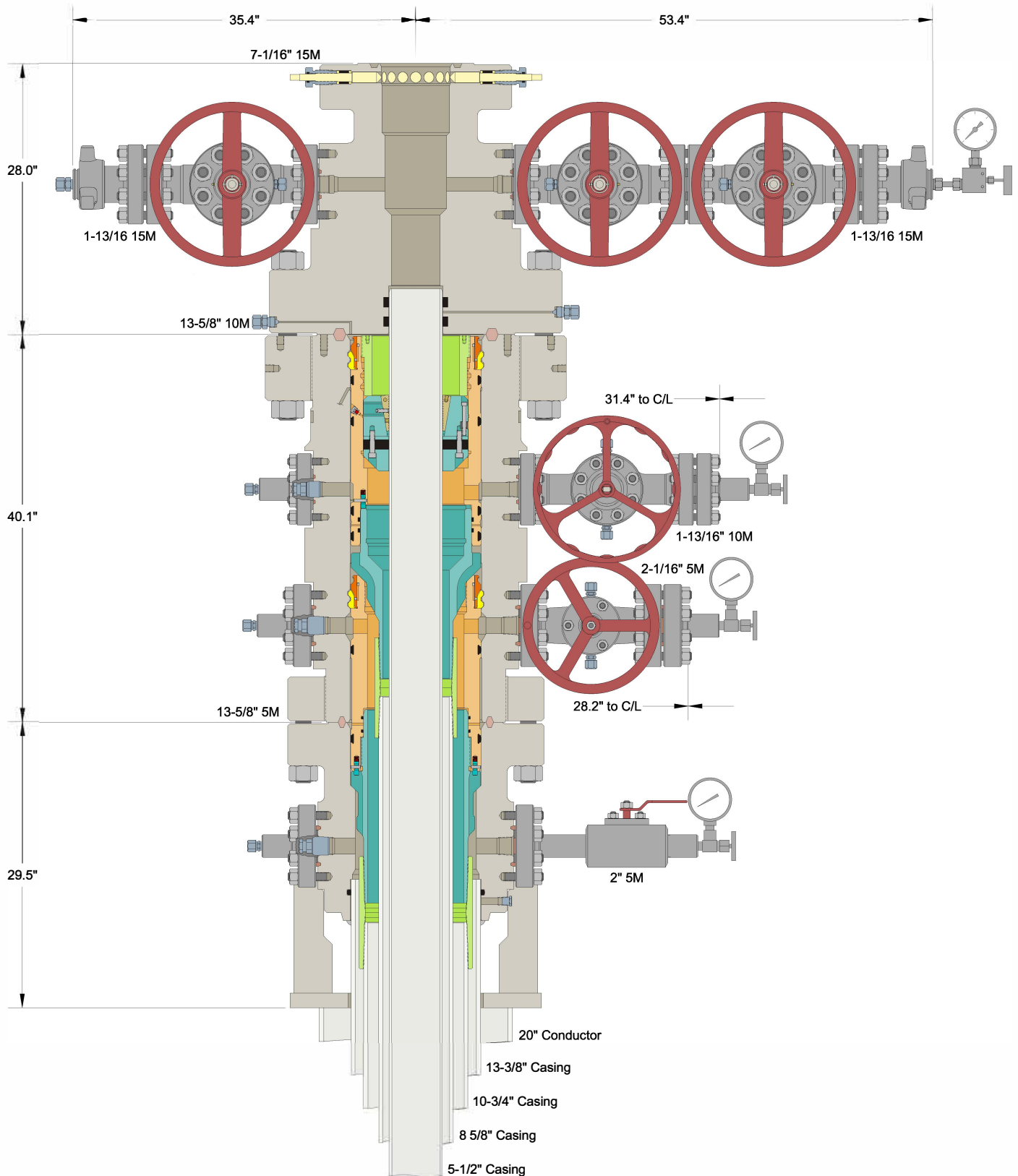


Save



Print

EXIT



INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

ALL DIMENSIONS APPROXIMATE

## CACTUS WELLHEAD LLC

MATADOR RESOURCES  
WOLFCAMP A WELLS (TEXAS)

20" x 13-3/8" x 10-3/4" x 8-5/8" x 5-1/2" MBU-4T-SOW Wellhead  
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head,  
10-3/4" & 8-5/8" Mandrel Hangers And 5-1/2" Slip Casing Hanger

|             |     |            |
|-------------|-----|------------|
| DRAWN       | DLE | 09AUG19    |
| APPRV       |     |            |
| DRAWING NO. |     | HBE0000156 |

**PECOS DISTRICT  
DRILLING CONDITIONS OF APPROVAL**

|                         |   |
|-------------------------|---|
| <b>OPERATOR'S NAME:</b> | <b>Devon Energy Production Company LP</b> |
| <b>LEASE NO.:</b>       | <b>NMNM83068</b>                          |
| <b>LOCATION:</b>        | Section 27, T.20 S., R.29 E., NMPM        |
| <b>COUNTY:</b>          | Eddy County, New Mexico                   |

|                              |  |
|------------------------------|--|
| <b>WELL NAME &amp; NO.:</b>  | <b>Prairie Fire 27-25 Fed Com 331H</b> |
| <b>SURFACE HOLE FOOTAGE:</b> | 178'/N & 710'/W                        |
| <b>BOTTOM HOLE FOOTAGE:</b>  | 1220'/N & 20'/E                        |
| <b>ATS/API ID:</b>           | <b>ATS-21-2486</b>                     |
| <b>APD ID:</b>               | <b>10400076839</b>                     |
| <b>Sundry ID:</b>            | N/a                                    |

|                              |  |
|------------------------------|--|
| <b>WELL NAME &amp; NO.:</b>  | <b>Prairie Fire 27-25 Fed Com 621H</b> |
| <b>SURFACE HOLE FOOTAGE:</b> | 148'/N & 710'/W                        |
| <b>BOTTOM HOLE FOOTAGE:</b>  | 460'/N & 20'/E                         |
| <b>ATS/API ID:</b>           | <b>ATS-21-2488</b>                     |
| <b>APD ID:</b>               | <b>10400077077</b>                     |
| <b>Sundry ID:</b>            | N/a                                    |

|                              |  |
|------------------------------|--|
| <b>WELL NAME &amp; NO.:</b>  | <b>Prairie Fire 27-25 Fed Com 622H</b> |
| <b>SURFACE HOLE FOOTAGE:</b> | 208'/N & 710'/W                        |
| <b>BOTTOM HOLE FOOTAGE:</b>  | 1980'/N & 20'/E                        |
| <b>ATS/API ID:</b>           | <b>ATS-21-2489</b>                     |
| <b>APD ID:</b>               | <b>10400077101</b>                     |
| <b>Sundry ID:</b>            | N/a                                    |

COA

|                               |   |   |   |
|-------------------------------|---|---|---|
| H2S                           | No  |   |   |
| Potash                        | Secretary   |   |   |
| Cave/Karst Potential          | High  |   |   |
| Cave/Karst Potential          | <input type="checkbox"/> Critical                 |   |   |
| Variance                      | <input checked="" type="checkbox"/> None          | <input checked="" type="checkbox"/> Flex Hose | <input checked="" type="checkbox"/> Other |
| Wellhead                      | Conventional and Multibowl                        |   |   |
| Other                         | <input checked="" type="checkbox"/> 4 String      | Capitan Reef<br>Int 2                         | <input type="checkbox"/> WIPP             |
| Other                         | Pilot Hole<br>None                                | <input type="checkbox"/> Open Annulus         |   |
| Cementing                     | Contingency Squeeze<br>None                       | Echo-Meter<br>Int 2                           | Primary Cement Squeeze<br>None            |
| Special Requirements          | <input type="checkbox"/> Water Disposal/Injection | <input checked="" type="checkbox"/> COM       | <input type="checkbox"/> Unit             |
| Special Requirements          | <input type="checkbox"/> Batch Sundry             |   |   |
| Special Requirements Variance | <input checked="" type="checkbox"/> Break Testing | <input type="checkbox"/> Offline Cementing    | <input type="checkbox"/> Casing Clearance |

## A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet **43 CFR part 3170 Subpart 3176**, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

## B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **350 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be **17 1/2** inch in diameter.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of



- six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **10-3/4** inch intermediate casing shall be set at approximately **1750 feet** is:
- Cement to surface. If cement does not circulate see B.1.a, c-d above.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.**
3. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:

**Option 1 (Single Stage):**

- Cement to surface. If cement does not circulate see B.1.a, c-d above.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.**

**Option 2:**

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the **Capitan Reef at 1810'** (357 sxs Class H/C+ additives).
- b. Second stage:
  - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. (Squeeze 70 sxs Class C)  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.**

Operator has proposed to pump down 10-3/4" X 8-5/8" annulus after primary cementing stage. **Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus Or operator shall run a CBL from TD of the 8-5/8" casing to surface after the second stage BH to verify TOC.**

Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad.

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

- ❖ In High Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- ❖ In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- ❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

4. The minimum required fill of cement behind the 5-1/2 inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef. Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.**

### C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2.

#### **Option 1:**

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe

shall be **3000 (3M) psi. Annular which shall be tested to 2100 (70% Working Pressure) psi.**

- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **10-3/4** intermediate casing shoe shall be **3000 (3M) psi. Annular which shall be tested to 2100 (70% Working Pressure) psi.**
- c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **8-5/8** inch intermediate casing shoe shall be **5000 (5M) psi.**

#### **Option 2:**

- a. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi.**
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

#### **D. SPECIAL REQUIREMENT (S)**

##### **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in **43 CFR part 3170 Subpart 3171**

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

**BOPE Break Testing Variance (Approved)**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted **(575-361-2822 Eddy County)** 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at **21-day** intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.



## GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Eddy County

**EMAIL** or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

**[BLM\\_NM\\_CFO\\_DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV)**

(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,

(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a

digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after

installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR**



**part 3170 Subpart 3172.**

**C. DRILLING MUD**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

**D. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

LVO 11/15/2023



**Devon Energy Center  
333 West Sheridan Avenue  
Oklahoma City, Oklahoma 73102-5015**

# **Hydrogen Sulfide (H<sub>2</sub>S) Contingency Plan**

**For**

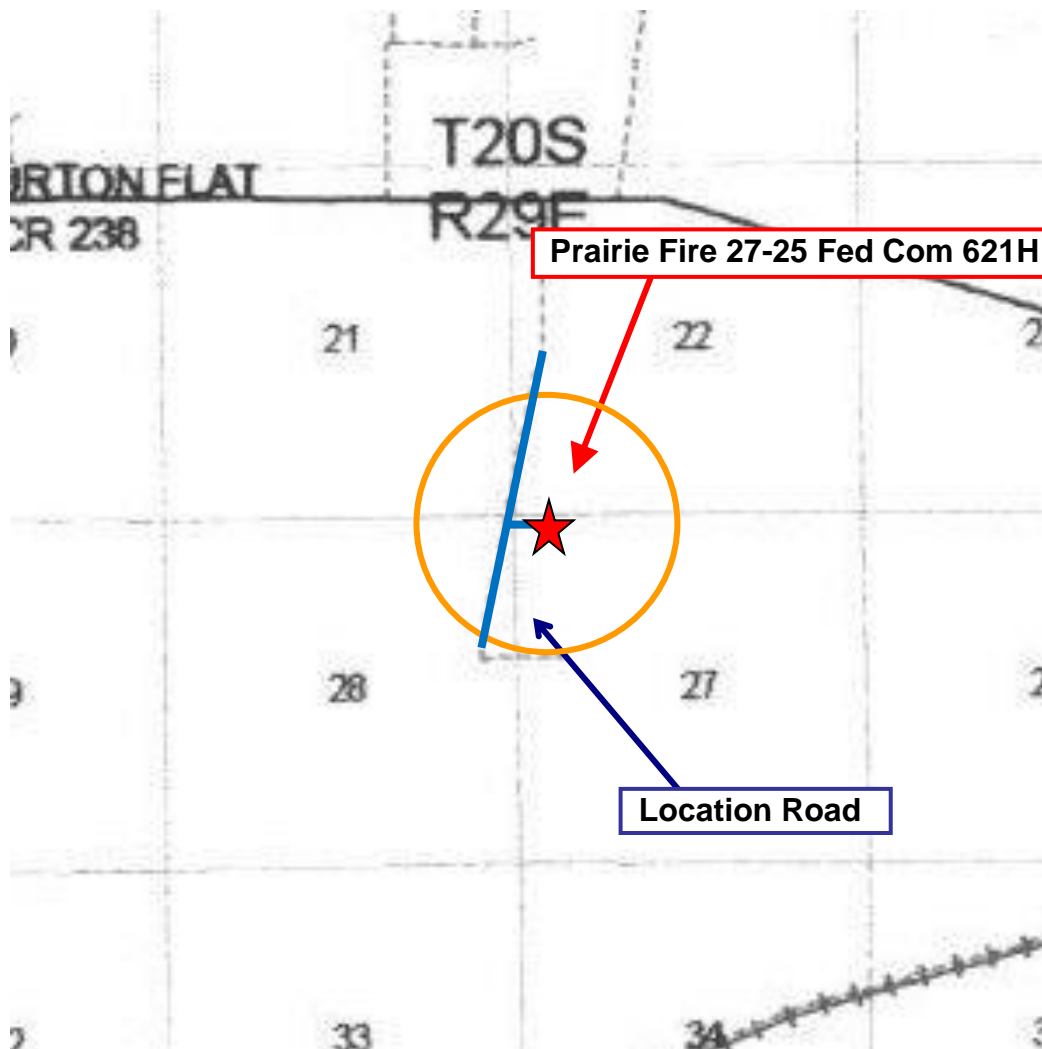
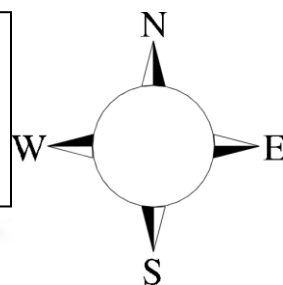
**Prairie Fire 27-25 Fed Com 621H**

**Sec-27 T-20S R-29E  
148' FNL & 710' FWL  
LAT. = 32.551285' N (NAD83)  
LONG = 104.069157' W**

**Eddy County NM**

## Prairie Fire 27-25 Fed Com 621H

This is an open drilling site. H<sub>2</sub>S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H<sub>2</sub>S, including warning signs, wind indicators and H<sub>2</sub>S monitor.



Assumed 100 ppm ROE = 3000' (Radius of Exposure)  
100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

### Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

**Assumed 100 ppm ROE = 3000'**

## 100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

### Emergency Procedures

In the event of a release of gas containing H<sub>2</sub>S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- Use the “buddy system” to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
  - Detection of H<sub>2</sub>S, and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

### **Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

### **Characteristics of H<sub>2</sub>S and SO<sub>2</sub>**

| <b>Common Name</b>      | <b>Chemical Formula</b> | <b>Specific Gravity</b> | <b>Threshold Limit</b> | <b>Hazardous Limit</b> | <b>Lethal Concentration</b> |
|-------------------------|-------------------------|-------------------------|------------------------|------------------------|-----------------------------|
| <b>Hydrogen Sulfide</b> | H <sub>2</sub> S        | 1.189<br>Air = 1        | 10 ppm                 | 100 ppm/hr             | 600 ppm                     |
| <b>Sulfur Dioxide</b>   | SO <sub>2</sub>         | 2.21<br>Air = 1         | 2 ppm                  | N/A                    | 1000 ppm                    |

### **Contacting Authorities**

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico’s ‘Hazardous Materials Emergency Response Plan’ (HMER)

## Hydrogen Sulfide Drilling Operation Plan

### I. HYDROGEN SULFIDE (H<sub>2</sub>S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H<sub>2</sub>S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

### II. HYDROGEN SULFIDE TRAINING

Note: All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H<sub>2</sub>S.



**1. Well Control Equipment**

- A. Flare line
- B. Choke manifold – Remotely Operated
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer and rotating head.
- E. Mud/Gas Separator

**2. Protective equipment for essential personnel:**

30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

**3. H<sub>2</sub>S detection and monitoring equipment:**

Portable H<sub>2</sub>S monitors positioned on location for best coverage and response. These units have warning lights which activate when H<sub>2</sub>S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

- Bell nipple
- Possum Belly/Shale shaker
- Rig floor
- Choke manifold
- Cellar

**Visual warning systems:**

- A. Wind direction indicators as shown on well site diagram
- B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

**4. Mud program:**

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. Proper mud weight, safe drilling practices and the use of H<sub>2</sub>S scavengers will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

**5. Metallurgy:**

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H<sub>2</sub>S trim.
- B. All elastomers used for packing and seals shall be H<sub>2</sub>S trim.

**6. Communication:**

- A. Company personnel have/use cellular telephones in the field.
- B. Land line (telephone) communications at Office

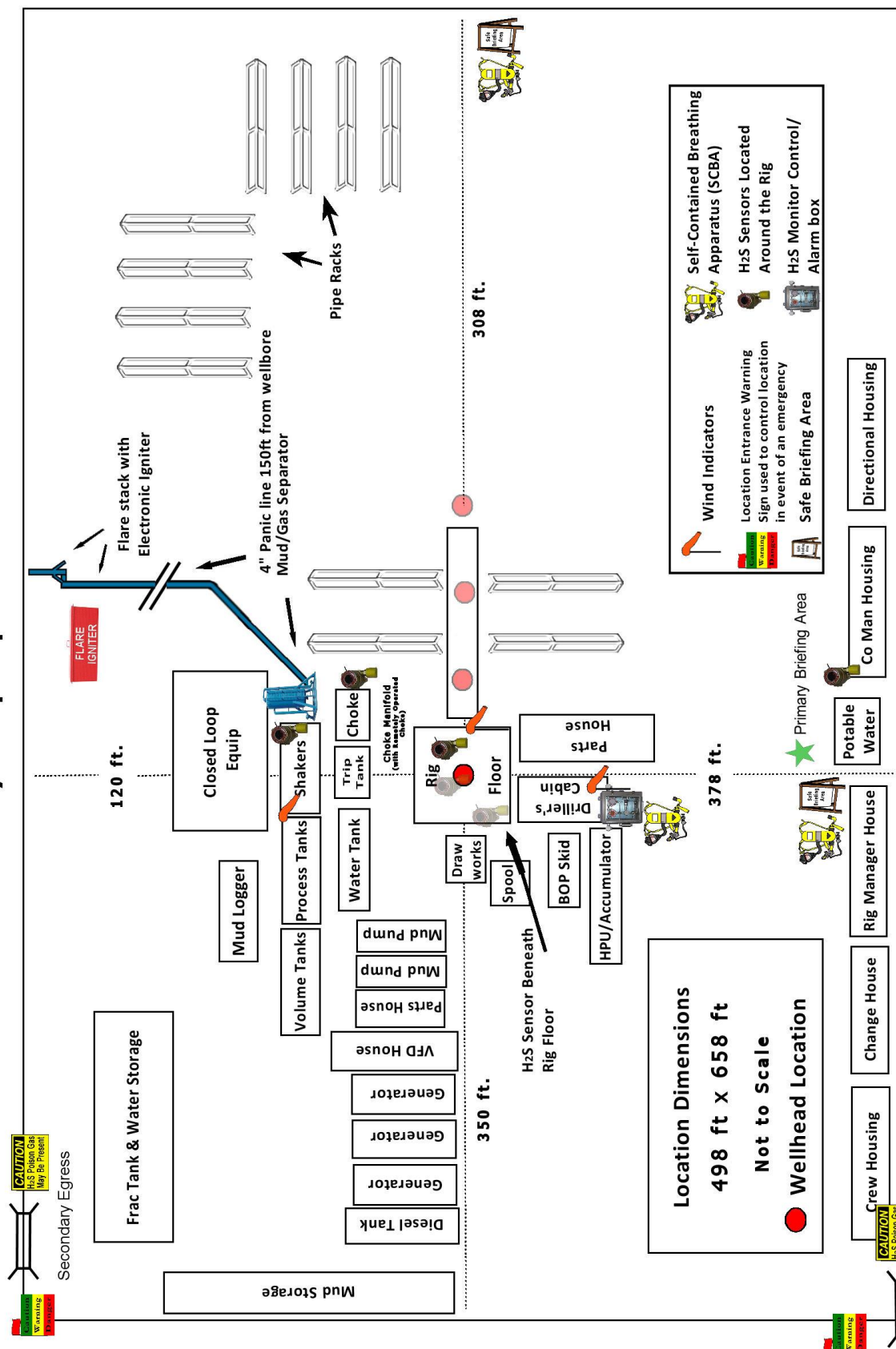
**7. Well testing:**

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H<sub>2</sub>S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

| <b><u>Devon Energy Corp. Company Call List</u></b> |   |                               |
|--|---|-------------------------------|
| Drilling Supervisor – Basin – Mark Kramer          |   | 405-823-4796                  |
| EHS Professional – Laura Wright                    |   | 405-439-8129                  |
| <b><u>Agency Call List</u></b>                     |   |                               |
| <b><u>Lea County (575)</u></b>                     | <b>Hobbs</b>  |                               |
|  | Lea County Communication Authority                                      | 393-3981                      |
|  | State Police  | 392-5588                      |
|  | City Police   | 397-9265                      |
|  | Sheriff's Office  | 393-2515                      |
|  | <b>Ambulance</b>  | <b>911</b>                    |
|  | Fire Department   | 397-9308                      |
|  | LEPC (Local Emergency Planning Committee)                               | 393-2870                      |
|  | NMOCD   | 393-6161                      |
|  | US Bureau of Land Management  | 393-3612                      |
|  |   |                               |
|  |   |                               |
| <b><u>Eddy County (575)</u></b>                    | <b>Carlsbad</b>   |                               |
|  | State Police  | 885-3137                      |
|  | City Police   | 885-2111                      |
|  | Sheriff's Office  | 887-7551                      |
|  | <b>Ambulance</b>  | <b>911</b>                    |
|  | Fire Department   | 885-3125                      |
|  | LEPC (Local Emergency Planning Committee)                               | 887-3798                      |
|  | US Bureau of Land Management  | 887-6544                      |
|  | NM Emergency Response Commission (Santa Fe)                             | (505) 476-9600                |
|  | 24 HR   | (505) 827-9126                |
|  | National Emergency Response Center                                      | (800) 424-8802                |
|  | National Pollution Control Center: Direct                               | (703) 872-6000                |
|  | For Oil Spills  | (800) 280-7118                |
|  | <b>Emergency Services</b>   |                               |
|  | Wild Well Control   | (281) 784-4700                |
|  | Cudd Pressure Control   | (915) 699-0139 (915) 563-3356 |
|  | Halliburton   | (575) 746-2757                |
|  | B. J. Services  | (575) 746-3569                |
|  |   |                               |
|  |   |                               |
| <b><u>Give GPS position:</u></b>                   | Native Air – Emergency Helicopter – Hobbs (TX & NM)                     | (800) 642-7828                |
|  | Flight For Life - Lubbock, TX   | (806) 743-9911                |
|  | Aerocare - Lubbock, TX  | (806) 747-8923                |
|  | Med Flight Air Amb - Albuquerque, NM                                    | (575) 842-4433                |
|  | Lifeguard Air Med Svc. Albuquerque, NM                                  | (800) 222-1222                |
|  | Poison Control (24/7)   | (575) 272-3115                |
|  | Oil & Gas Pipeline 24 Hour Service                                      | (800) 364-4366                |
|  | NOAA – Website - <a href="http://www.nhc.noaa.gov">www.nhc.noaa.gov</a> |                               |
|  |   |                               |

Prepared in conjunction with  
Dave Small









**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 296746

**CONDITIONS**

|   |                |
|---|----------------|
| Operator:<br>DEVON ENERGY PRODUCTION COMPANY, LP<br>333 West Sheridan Ave.<br>Oklahoma City, OK 73102 | OGRID:         |
|   | 6137           |
|   | Action Number: |
|   | 296746         |
| Action Type:  |                |
| [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)   |                |

**CONDITIONS**

| Created By  | Condition  | Condition Date |
|-------------|--|----------------|
| ward.rikala | Notify OCD 24 hours prior to casing & cement   | 1/12/2024      |
| ward.rikala | Will require a File As Drilled C-102 and a Directional Survey with the C-104   | 1/12/2024      |
| ward.rikala | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string | 1/12/2024      |
| ward.rikala | Cement is required to circulate on both surface and intermediate1 strings of casing  | 1/12/2024      |
| ward.rikala | If cement does not circulate on any string, a CBL is required for that string of casing  | 1/12/2024      |
| ward.rikala | Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system                  | 1/12/2024      |